D-Link®
Building Networks for People

DCS-6111

WDR D&N Fixed Dome Network Camera

User Manual

Business Class Networking

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Package Contents

- D-Link DCS-6111 WDR D&N Fixed Dome Network Camera
- CAT5 Ethernet Cable
- Power Adapter
- Dome Enclosure
- Ring Enclosure
- Screw Driver
- Screws
- I/O Connector Plug
- Alignment Stencil
- Manual and Software on CD
- Quick Install Guide

Note: *Using a power supply with a different voltage than the one included with your product will cause damage and void the warranty for this product.*

If any of the above items are missing, please contact your reseller.

System Requirements

- Windows® XP or Windows Vista®
- At least 256MB of memory (512MB recommended)
- An available Ethernet connection
- Internet Explorer 6.x or higher
- VGA card resolution: 800 x 600 or above
- CPU: 1.7GHz or above (2.8GHz plus processor with 512MB memory and a 32MB video card is required for multiple camera viewing and recording in IP surveillance program)

Introduction

The DCS-6111 is a fixed dome network camera for indoor, office or home use, and designed to target the middle-market.

With an ultra Wide Dynamic Range (WDR) CMOS sensor, the DCS-6111 is used to provide better performance surveillance results under different lighting conditions. It can be used in highly contrast environments such as a lobby, retail store, ATM and much more. The WDR sensor helps in balancing the strong backlight of the surveillance scenery, like a window or glass door. The camera also includes an IR LED for night vision illumination and Infrared-Cut Removable (ICR) module that enables for 24-hour surveillance. A built-in 802.3af compliant Power over Ethernet (PoE) module is designed to ease the installation of your camera anywhere there is not an available power outlet.

The DCS-6111 provides high quality real-time videos in MPEG-4 and JPEG compression modes. It also supports the 3G mobile video feature that allows users to view a live video feed on a compatible 3G mobile phone or PDA anywhere in your 3G coverage area. In addition, the DCS-6111 supports dual stream output for simultaneous live monitoring and high resolution recording.

D-ViewCam software is also included to manage up to 32 cameras simultaneously from your computer, send automated e-mail alerts, and record videos to the hard drive when motion is detected. This deluxe-size dome network camera provides a better professional appearance to any location, making it an excellent choice for home and business surveillance systems.

Note: *Use of video equipment for recording the image of a person without their knowledge and consent is prohibited in certain states or jurisdictions. Nothing herein represents a warranty or representation that the D-Link product provided herein is suitable for the end-user's intended use under the applicable laws of his or her state. D-Link disclaims any liability whatsoever for any end-user use of the D-Link product, which fails to comply with applicable state, local, or federal laws.*

Features

- **Powerful Surveillance** - The DCS-6111 uses the WDR VGA Progressive CMOS technology that delivers exceptional picture quality. The Wide Dynamic Range capability achieves high resolution, more detailed images in high contrast lighting conditions (for example, strong backlight). With this sensor architecture, the DCS-6111 maintains a constant balance for different variations in illumination and significantly improves the quality of real-time videos.The DCS-6111 incorporates an varifocal lens equipped with IR LEDs that offers more flexibility and enhanced security, thus making it an ideal solution for 24 hour surveillance.

- **Enhanced Streaming Video** - The DCS-6111 uses D-Link's System-on-Chip (SoC) products to provide high quality video compression in MPEG-4 and Motion JPEG formats. The camera supports simultaneous dual-streaming for live monitoring and recording. With the free-bundled 32-channel recording software, the DCS-6111 is an ideal solution for high quality viewing and reliable recording. The live camera feed of the camera can be pulled from the 3G cellular network by using a compatible cell phone or PDA with a 3G video player. Anywhere within the 3GPP service area, users are offered a flexible and convenient way to remotely monitor a home or office in real time.

- **Various Installation Methods at Different Angles** - The DCS-6111 has a unique built-in three axis mechanism that can be drop-mounted to the ceiling for an unobtrusive look, or mounted on a wall with the same housing design. For optimal detection, the DCS-6111 is recommended for indoor ceiling mounting to prevent possible damage that maybe caused by a burglar.

- **Wired PoE Access** - For effective surveillance in and around a building, this camera comes with a built-in 802.3af compliant Power Over Ethernet (PoE) module, which eases the installation process and also gives users the freedom to place the camera anywhere. In addition, the 10/100BASE-TX Ethernet port is also provided for convenient Ethernet connection or broadband internet gateway with router.

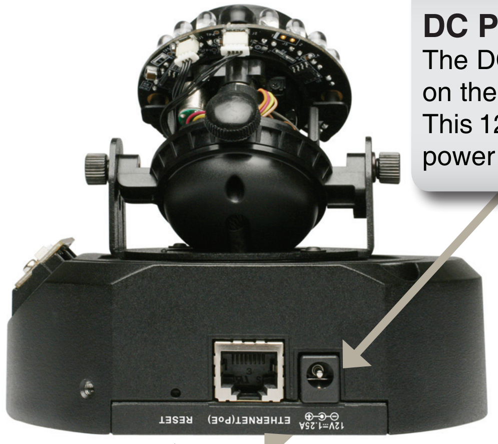
- **Smart & Easy To Use** - The DCS-6111 includes the D-ViewCam software that allows users to view up to 32 cameras on a single computer from a central location. Users can set up automated e-mail alerts to be instantly informed of unusual activities. Furthermore, this network camera supports the Universal Plug-n-Play feature. This allows Windows 2000/XP/Vista computers to automatically recognize the camera and adds to the network.

- **Supported Protocols** - The DCS-6111 supports IPv6, the latest version of the Internet Protocol and a wide variety of protocols such as RTSP, FTP, SMTP, NTP, HTTP and HTTPS. In addition, UPnP DDNS and LLTD protocols are supported for Windows Vista users. Users can sign up with one of the free Dynamic DNS services available on the web to assign a name and domain name to the camera (e.g.mycamera.dlinkddns.com). This allows them to remotely access the camera without having to remember the IP address. Using a multicast stream will preserve the network bandwidth. Unicast streaming is point-to-point transmission; on the other hand, multicast streaming enables the server to stream to a multicast IP address on the network, and the clients need to subscribe to the IP address in order to receive the stream. DCS-6111 features a built-in Samba client for NAS, and hence does not require a direct connection to a PC or any other hardware or software to capture and transfer images.

- **Alarm Inputs/Outputs for External Devices** - This network camera features an integrated 2-way audio support via external audio input/output connections. This two-way audio function allows users to listen as well as talk back at the remote camera location. The auxiliary input/output connectors enable users to connect to a variety of external devices such as PIR sensors, switches and alarm relays. With programmable alarming equipment, users can develop a variety of security applications which are used for triggering external devices based on events. The DCS-6111 provides an industry standard input/output external connectors for connectivity.

Hardware Overview

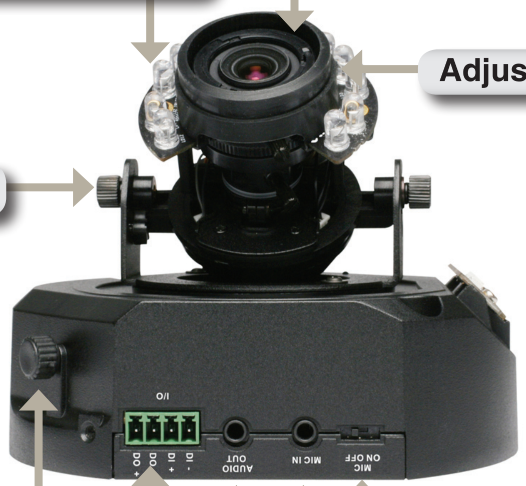
Connections



DC Power Connector
The DC power connector is located on the side panel of the DCS-6111. This 12V DC single-socket, supplies power to the network camera.

Reset Button
Reset is initiated when the reset button is pressed once and held until the power LED flashes through its cycle twice.

Ethernet Cable Connector (PoE)
The network camera's side panel features an RJ-45 connector for connections to 10Base-T Ethernet cabling or 100Base-TX Fast Ethernet cabling. This network port supports the NWay protocol, allowing this network camera to automatically detect or negotiate the transmission speed of the network. The Ethernet port can also be used to power the camera by using a PoE switch.



Focus Controller

Zoom Controller

Adjustment Screw

Tilt Screw

DI/DO

Pan Screw

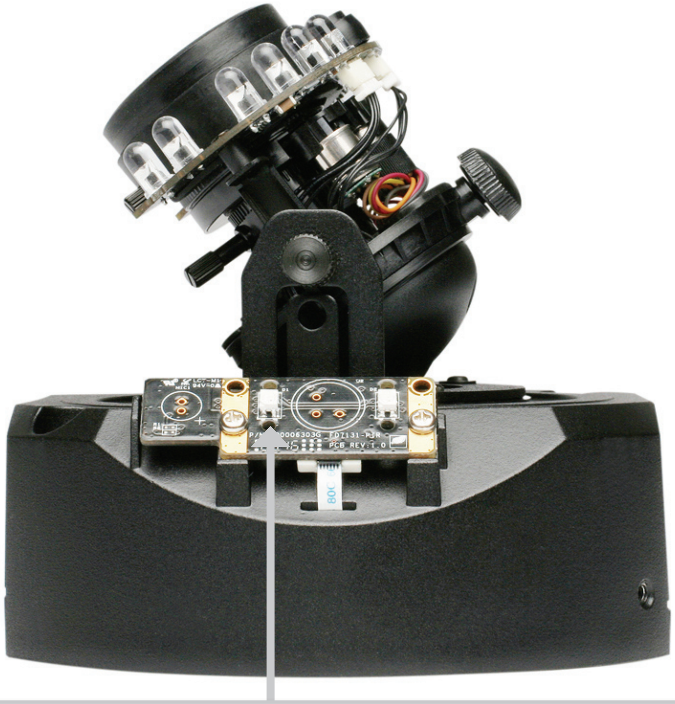
Microphone On/Off Switch
To turn the microphone on/off.

Audio Out Connector
Use the Audio Out connector for 2-way audio connection. Speakers (not included) may be connected to the camera for 2-way audio communication.

MIC In (Microphone Connector)
Use the MIC In connector for 2-way audio connection. Microphone (not included) may be connected to the camera for 2-way audio communication.

Hardware Overview

LEDs



Status LED

Blinking Red: indicates power is being supplied to the camera.

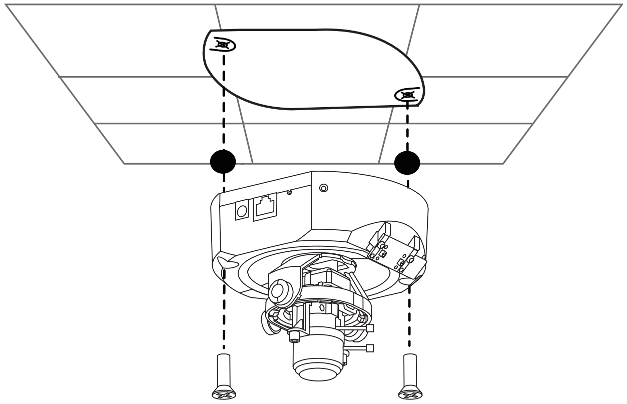
Solid Green: indicates that a connection has been established via Ethernet port.

Blinking Green: indicates traffic movement in the camera.

The Status LED will not glow if an Ethernet connection is not established.

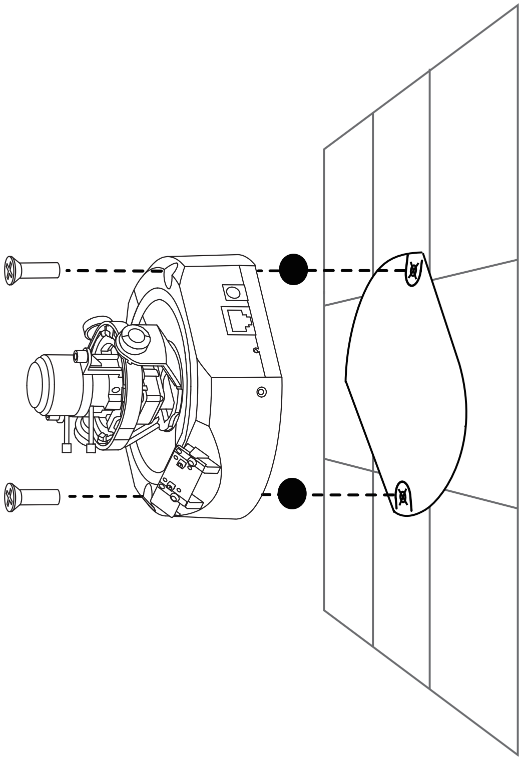
Hardware Installation

When Mounting to a Ceiling



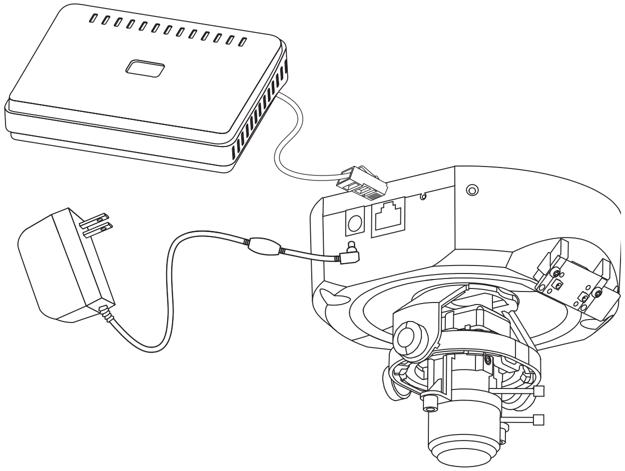
Find a suitable place to install the camera using the alignment stencil. Place the camera at the desired operating location and insert the screws through the two holes located at the base of the camera. Use a screwdriver to tighten and secure.

When Mounting to a Wall



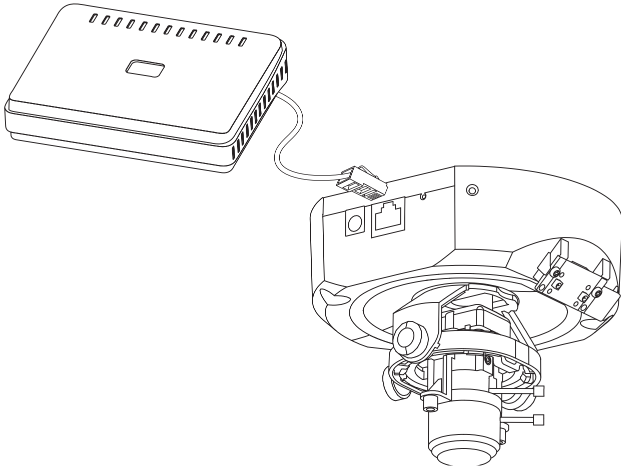
Find a suitable place to install the camera by using the alignment stencil to find a desired operating location on the wall. Drill two pilot holes where the holes of the alignment stencil are located. Insert the supplied plastic anchors into the drilled holes, and align the holes at the base of the camera with the plastic anchors. Once aligned, insert the provided screws through the holes. Use a screwdriver to tighten and secure.

Network Deployment



General Connection (without PoE)

Connect the network camera to a switch via an Ethernet cable.
Connect the supplied power cable from the camera to a power outlet.



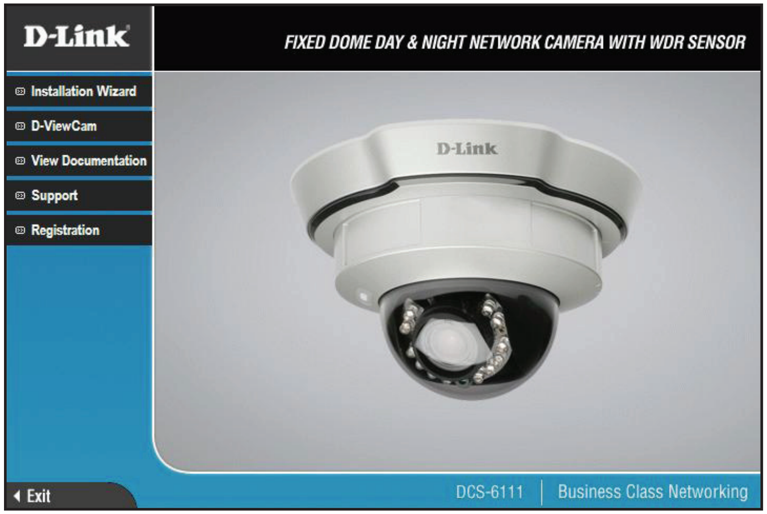
Connection with a PoE Switch

If using a PoE switch, connect the network camera to the switch via an Ethernet cable, which will provide both power and data transmission over a single cable.

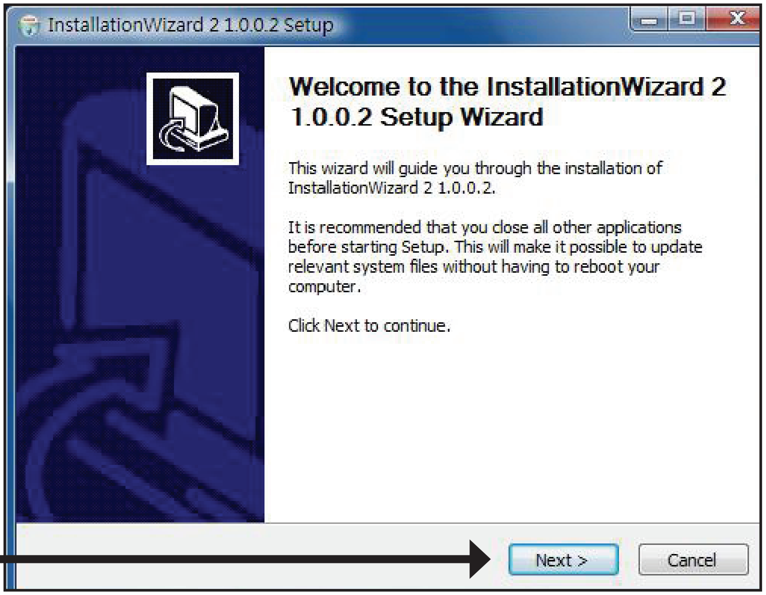
Software Installation

Turn on the computer and insert the D-Link DCS-6111 Autorun CD into the CD-ROM drive. The following step-by-step instructions displayed are shown when using Windows Vista® operating system. The steps and screens are similar when using other Windows operating systems.

Click on **Installation Wizard** to begin software installation.


D-Link
FIXED DOME DAY & NIGHT NETWORK CAMERA WITH WDR SENSOR
Installation Wizard
D-ViewCam
View Documentation
Support
Registration
Exit
DCS-6111
Business Class Networking

The Installation Setup Wizard window will pop up. Click **Next** to continue.


InstallationWizard 2 1.0.0.2 Setup
Next >
Cancel

Welcome to the InstallationWizard 2 1.0.0.2 Setup Wizard

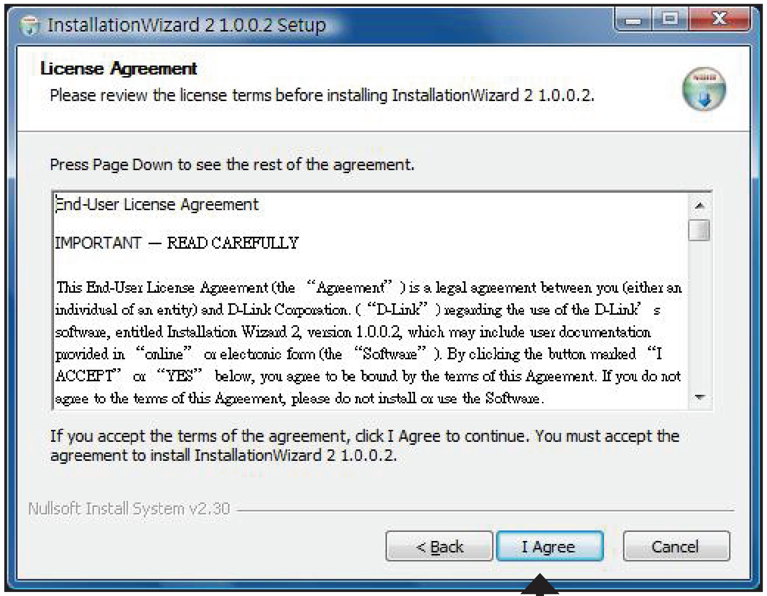
This wizard will guide you through the installation of InstallationWizard 2 1.0.0.2.

It is recommended that you close all other applications before starting Setup. This will make it possible to update relevant system files without having to reboot your computer.

Click Next to continue.

Click **Next**

Click **I Agree** to accept the License Agreement.


InstallationWizard 2 1.0.0.2 Setup

License Agreement

Please review the license terms before installing InstallationWizard 2 1.0.0.2.

Press Page Down to see the rest of the agreement.

End-User License Agreement

IMPORTANT — READ CAREFULLY

This End-User License Agreement (the "Agreement") is a legal agreement between you (either an individual of an entity) and D-Link Corporation. ("D-Link") regarding the use of the D-Link's software, entitled Installation Wizard 2, version 1.0.0.2, which may include user documentation provided in "online" or electronic form (the "Software"). By clicking the button marked "I ACCEPT" or "YES" below, you agree to be bound by the terms of this Agreement. If you do not agree to the terms of this Agreement, please do not install or use the Software.

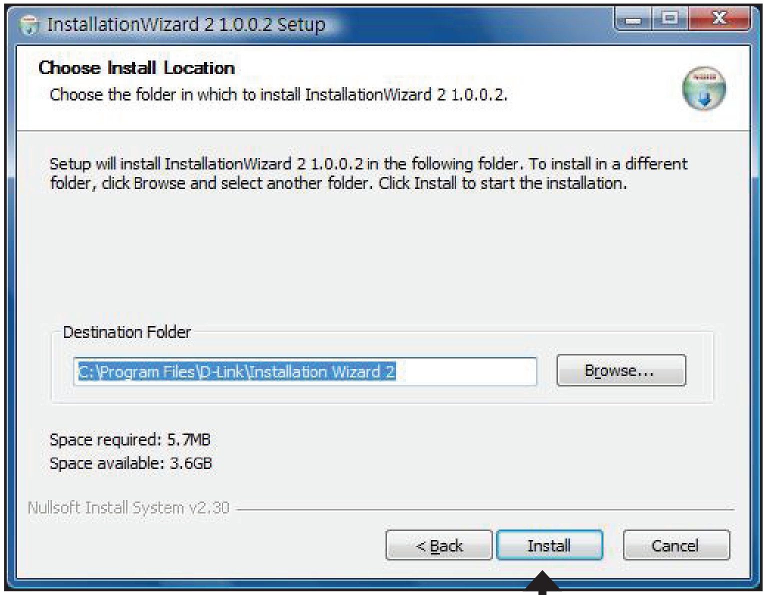
If you accept the terms of the agreement, click I Agree to continue. You must accept the agreement to install InstallationWizard 2 1.0.0.2.

Nullsoft Install System v2.30
< Back
I Agree
Cancel

Click I Agree

Click the **Browse** button if you would like to change the destination of installation. Otherwise, click **Install** to continue.

Note: *Installation may take several minutes to complete.*


InstallationWizard 2 1.0.0.2 Setup

Choose Install Location

Choose the folder in which to install InstallationWizard 2 1.0.0.2.

Setup will install InstallationWizard 2 1.0.0.2 in the following folder. To install in a different folder, click Browse and select another folder. Click Install to start the installation.

Destination Folder

C:\Program Files\D-Link\Installation Wizard 2

Space required: 5.7MB

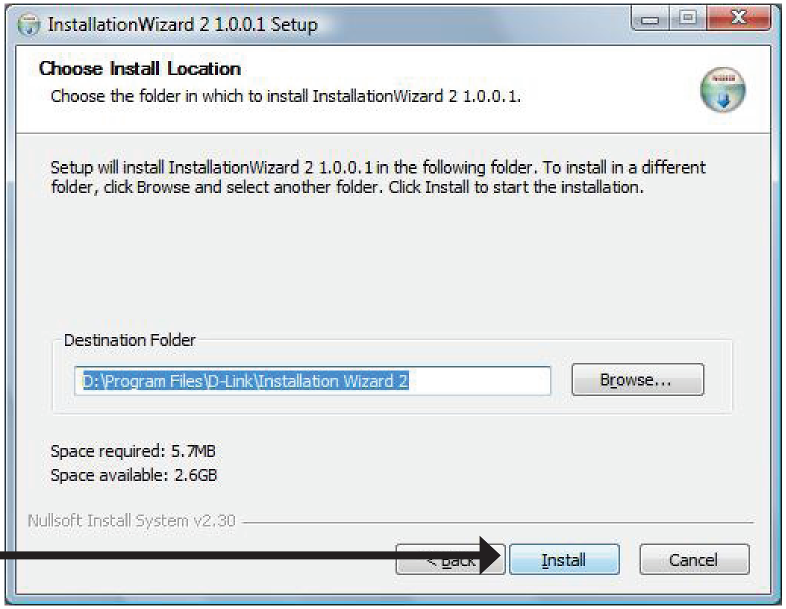
Space available: 3.6GB

Browse...
Nullsoft Install System v2.30
< Back
Install
Cancel

Click Install

To start the installation click **Install.**

***Note:** The installation may take several minutes to complete.*


InstallationWizard 2 1.0.0.1 Setup
Browse...
< Back
Install
Cancel

Choose Install Location

Choose the folder in which to install InstallationWizard 2 1.0.0.1.

Setup will install InstallationWizard 2 1.0.0.1 in the following folder. To install in a different folder, click Browse and select another folder. Click Install to start the installation.

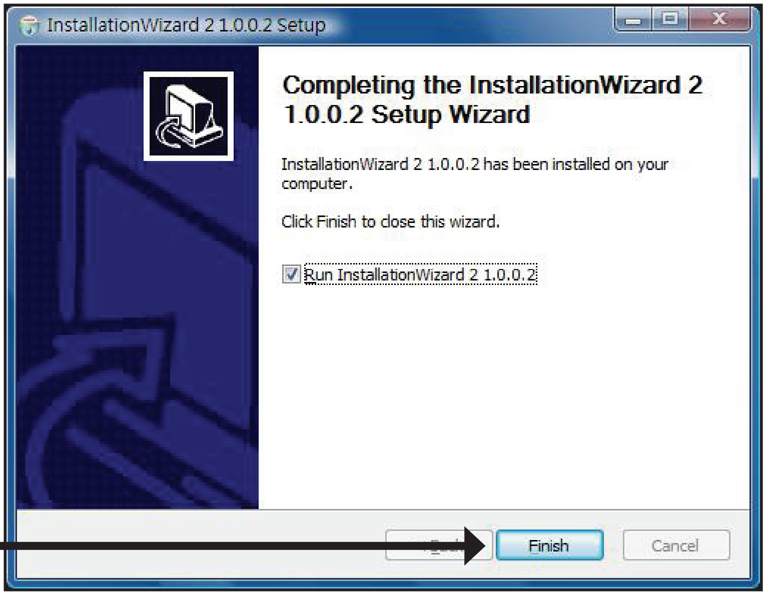
Destination Folder: D:\Program Files\D-Link\Installation Wizard 2

Space required: 5.7MB
Space available: 2.6GB

Nullsoft Install System v2.30

Click **Install**

Click **Finish** to complete installation and the D-Link Installation Wizard window will pop up for camera configuration.


InstallationWizard 2 1.0.0.2 Setup
< Back
Finish
Cancel

Completing the InstallationWizard 2 1.0.0.2 Setup Wizard

InstallationWizard 2 1.0.0.2 has been installed on your computer.

Click Finish to close this wizard.

☑ Run InstallationWizard 2 1.0.0.2

Click **Finish**

Configuring Your Camera with the Installation Wizard

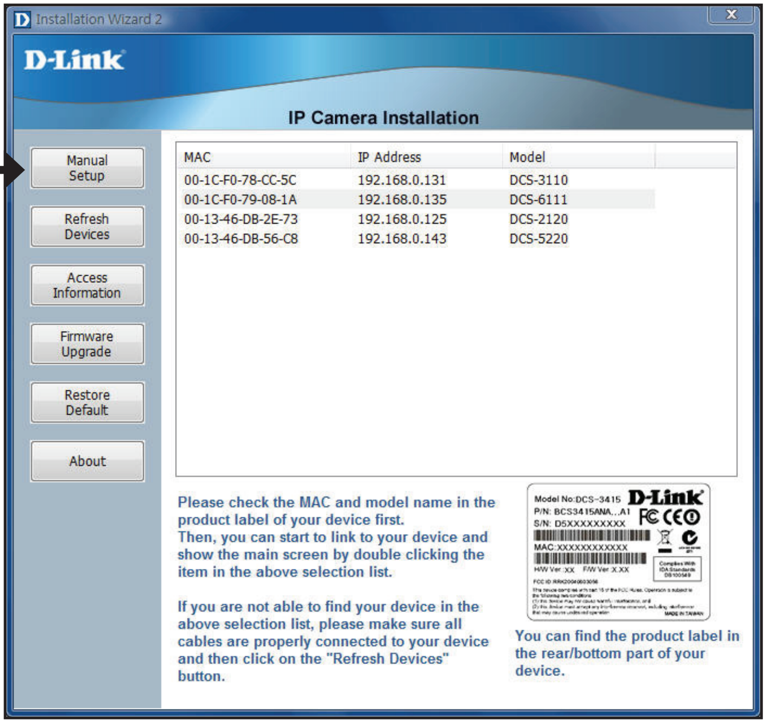
If the **D-Link Installation Wizard** window does not pop up after completion of software installation, click on the icon that was created in your Windows Start Menu.

The Installation Wizard will appear and show the MAC address and IP address of your DCS-6111, which may appear to be different from the actual address depending on what your device is connected to. If you have a DHCP server on your network, there will be a valid IP address displayed here.

Note: *A DHCP server is a device that supplies the same IP address.*

To begin setup, single-click on the DCS-6111 located in the camera list and click **Manual Setup** located on the left of the Installation Wizard.

Click **Manual Setup**


Installation Wizard 2
D-Link
IP Camera Installation
Manual Setup
Refresh Devices
Access Information
Firmware Upgrade
Restore Default
About
Model No:DCS-3415
P/N: BCS3415ANA...A1
S/N: D5XXXXXXXXX
MAC:XXXXXXXXXXXX
H/W Ver:XX F/W Ver:X.XX
MADE IN TAIWAN

MAC	IP Address	Model
00-1C-F0-78-CC-5C	192.168.0.131	DCS-3110
00-1C-F0-79-08-1A	192.168.0.135	DCS-6111
00-13-46-DB-2E-73	192.168.0.125	DCS-2120
00-13-46-DB-56-C8	192.168.0.143	DCS-5220

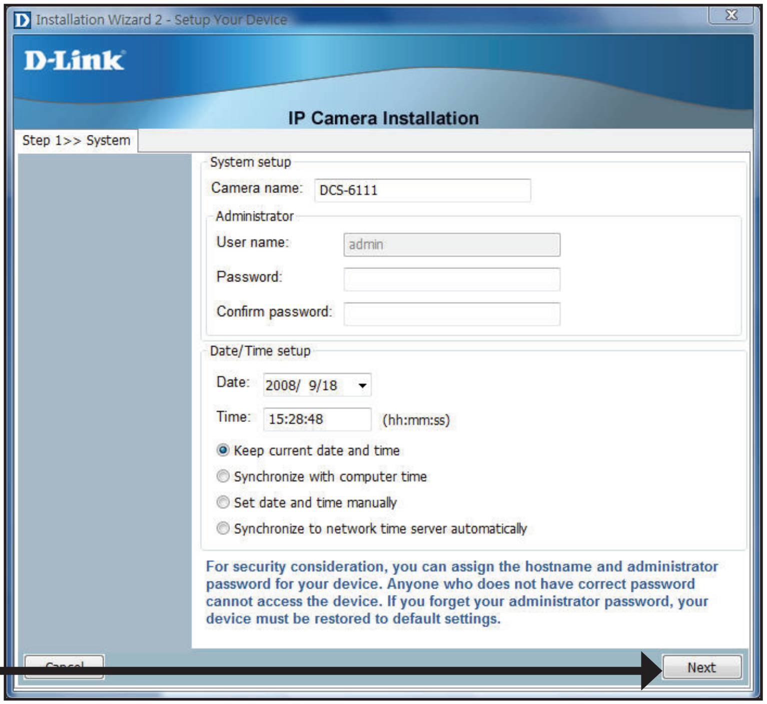
Please check the MAC and model name in the product label of your device first.
Then, you can start to link to your device and show the main screen by double clicking the item in the above selection list.

If you are not able to find your device in the above selection list, please make sure all cables are properly connected to your device and then click on the "Refresh Devices" button.

You can find the product label in the rear/bottom part of your device.

Enter a password, and confirm the password for your admin acccount and click **Next**.

Note: The default administrator username is **admin** and the password is left blank. The password can also be changed after installation.



Installation Wizard 2 - Setup Your Device

IP Camera Installation

Step 1>> System

System setup

Camera name: DCS-6111

Administrator

User name: admin

Password:

Confirm password:

Date/Time setup

Date: 2008/ 9/18

Time: 15:28:48 (hh:mm:ss)

● Keep current date and time

○ Synchronize with computer time

○ Set date and time manually

○ Synchronize to network time server automatically

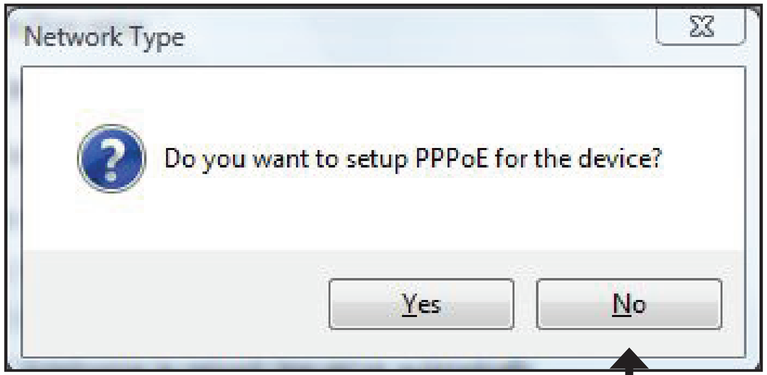
For security consideration, you can assign the hostname and administrator password for your device. Anyone who does not have correct password cannot access the device. If you forget your administrator password, your device must be restored to default settings.

Click **Next**

PPPoE Setup

The **Network Type** screen displays will pop up to ask if you want to setup PPPoE for the device. Click **No** for quick setup and skip to page 18.

Note: By using PPPoE, users can virtually dial from one machine to another over an Ethernet network, establish a point to point connection between them and then securely transport data packets over the connection.

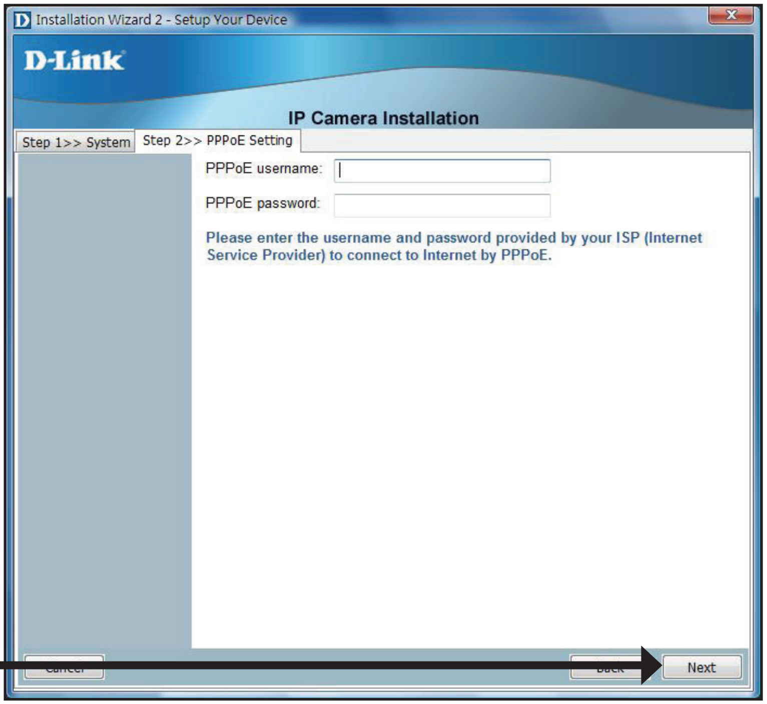

Network Type
Yes
No

Do you want to setup PPPoE for the device?

Click **No**

The **PPPoE Setting** screen displays. Enter the username and password provided by your ISP to connect to the Internet by PPPoE.

Click **Next** and skip to the setup screen as seen in page 19.


Installation Wizard 2 - Setup Your Device
D-Link
IP Camera Installation
Step 1>> System
Step 2>> PPPoE Setting
Cancel
Back
Next

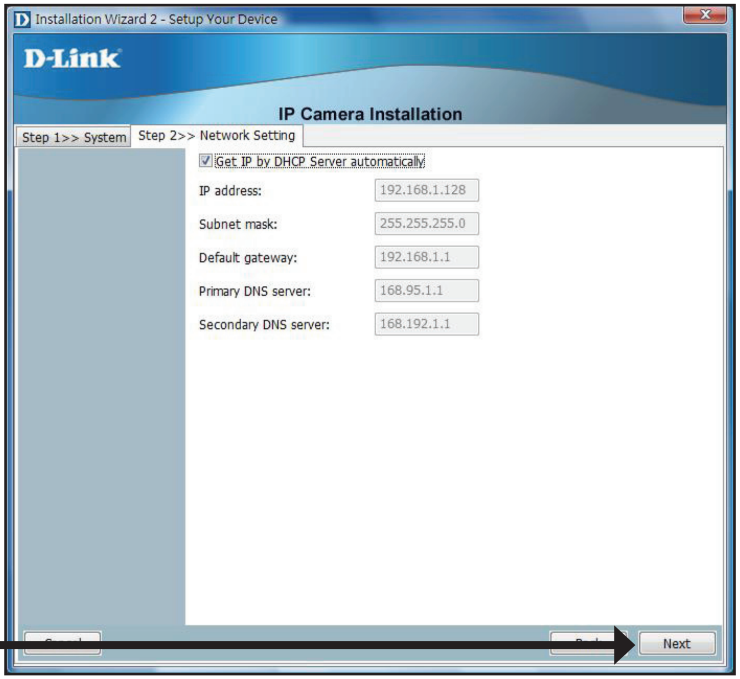
PPPoE username:

PPPoE password:

Please enter the username and password provided by your ISP (Internet Service Provider) to connect to Internet by PPPoE.

Click **Next**

Check the **Get IP by DHCP Server automatically** box to obtain a new IP address every time the camera starts up. Click **Next** to continue.

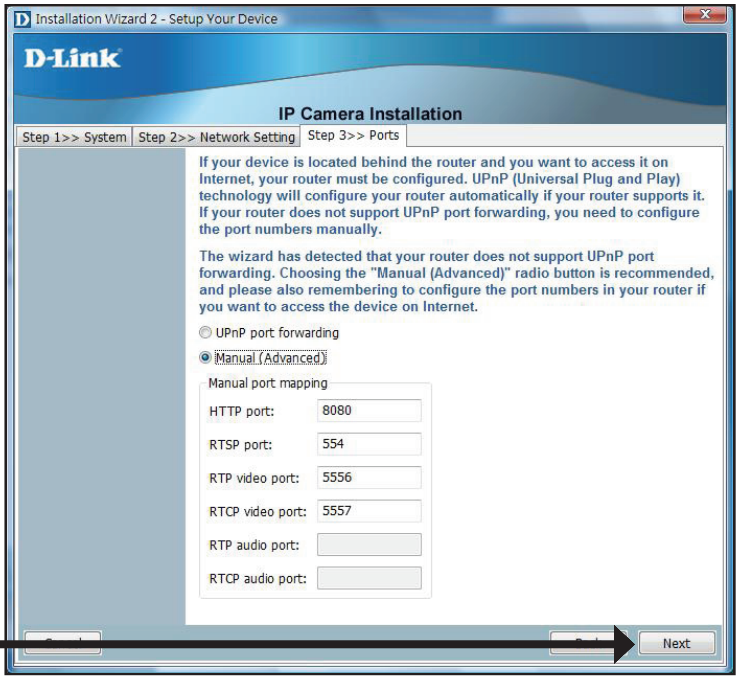

Installation Wizard 2 - Setup Your Device
D-Link
IP Camera Installation
Step 1>> System
Step 2>> Network Setting
Next

☑ Get IP by DHCP Server automatically

IP address: 192.168.1.128
Subnet mask: 255.255.255.0
Default gateway: 192.168.1.1
Primary DNS server: 168.95.1.1
Secondary DNS server: 168.192.1.1

Click **Next**

Select **UPnP Port Forwarding** if your router supports this function. If not, choose **Manual** to manually enter your port numbers. Click **Next** to continue.


Installation Wizard 2 - Setup Your Device
D-Link
IP Camera Installation
Step 1>> System
Step 2>> Network Setting
Step 3>> Ports
Next

If your device is located behind the router and you want to access it on Internet, your router must be configured. UPnP (Universal Plug and Play) technology will configure your router automatically if your router supports it. If your router does not support UPnP port forwarding, you need to configure the port numbers manually.

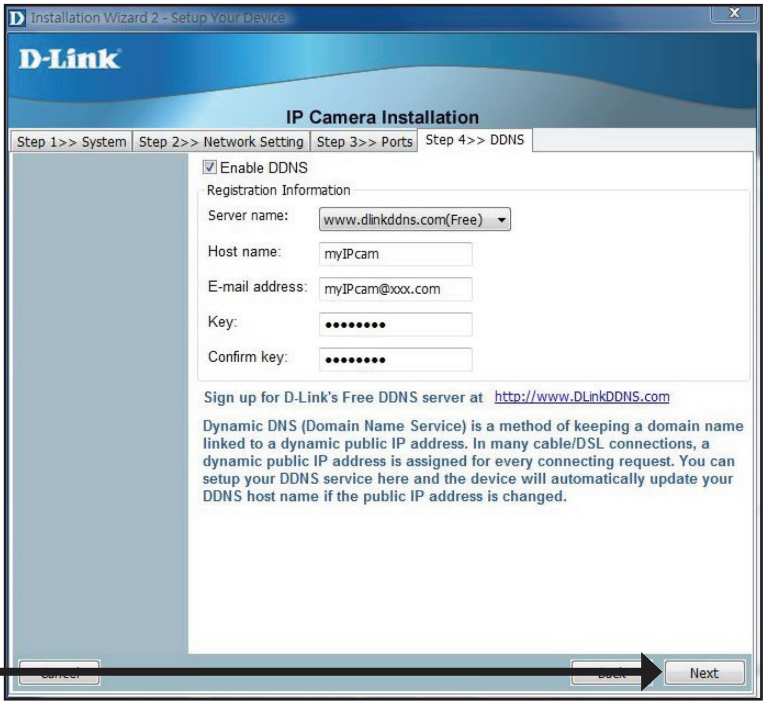
The wizard has detected that your router does not support UPnP port forwarding. Choosing the "Manual (Advanced)" radio button is recommended, and please also remembering to configure the port numbers in your router if you want to access the device on Internet.

○ UPnP port forwarding
● Manual (Advanced)

Manual port mapping
HTTP port: 8080
RTSP port: 554
RTP video port: 5556
RTCP video port: 5557
RTP audio port:
RTCP audio port:

Click **Next**

Click **Next** to continue.


Installation Wizard 2 - Setup Your Device
D-Link
IP Camera Installation
Step 1>> System
Step 2>> Network Setting
Step 3>> Ports
Step 4>> DDNS
Cancel
Back
Next

☑ Enable DDNS

Registration Information

Server name: www.dlinkddns.com(Free)

Host name: myIPcam

E-mail address: myIPcam@xxx.com

Key: ••••••••

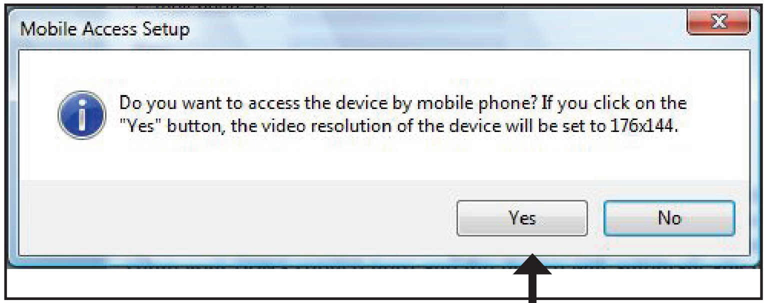
Confirm key: ••••••••

Sign up for D-Link's Free DDNS server at http://www.DLinkDDNS.com

Dynamic DNS (Domain Name Service) is a method of keeping a domain name linked to a dynamic public IP address. In many cable/DSL connections, a dynamic public IP address is assigned for every connecting request. You can setup your DDNS service here and the device will automatically update your DDNS host name if the public IP address is changed.

Click **Next**

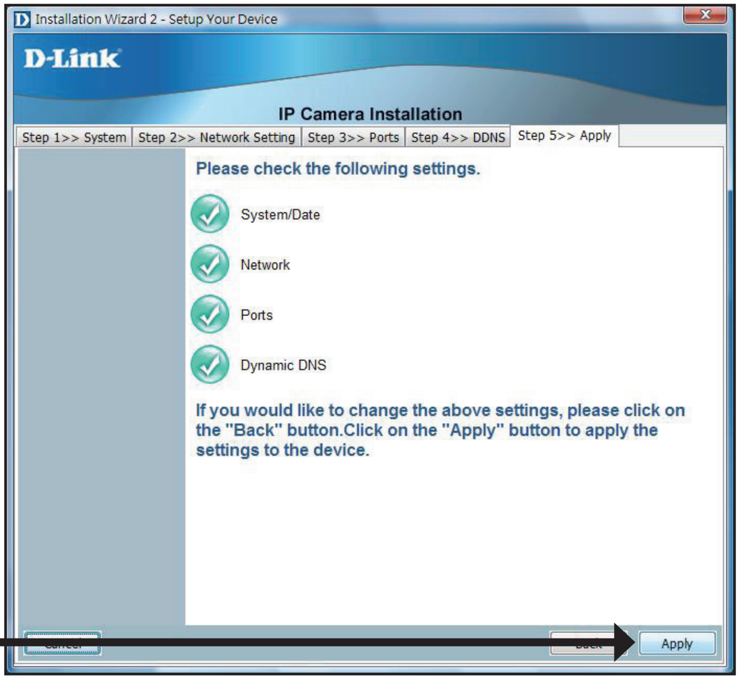
A window will pop up asking you if you want to access the DCS-6111 via mobile phone. Clicking **Yes** will set the video resolution to 176x144.


Mobile Access Setup
Yes
No

Do you want to access the device by mobile phone? If you click on the "Yes" button, the video resolution of the device will be set to 176x144.

Click **Yes**

Click **Apply** to apply the settings listed in the window to the device. The application may take a few minutes to process.


Installation Wizard 2 - Setup Your Device
D-Link
IP Camera Installation
Step 1>> System
Step 2>> Network Setting
Step 3>> Ports
Step 4>> DDNS
Step 5>> Apply
Back
Apply

Please check the following settings.

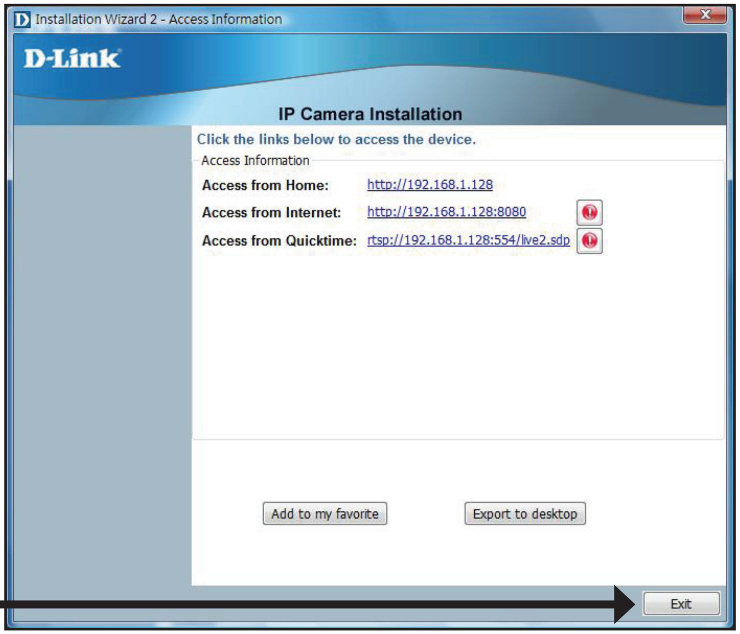
- ✓ System/Date
- ✓ Network
- ✓ Ports
- ✓ Dynamic DNS

If you would like to change the above settings, please click on the "Back" button.Click on the "Apply" button to apply the settings to the device.

Click **Apply**

A window will pop up to confirm that the application was successfully configured. Click **OK** to continue.

A new window will pop up displaying the links/addresses to access your device. Click **Add to my favorite** to save the address and then click **Exit** to complete the installation.


Installation Wizard 2 - Access Information
D-Link
IP Camera Installation
Add to my favorite
Export to desktop
Exit

Click the links below to access the device.

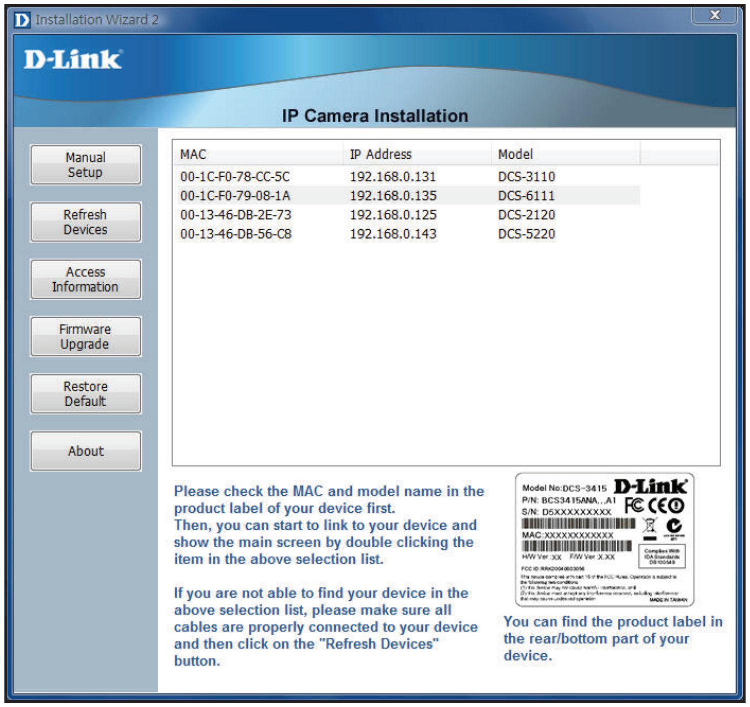
Access Information

Access from Home: http://192.168.1.128
Access from Internet: http://192.168.1.128:8080
Access from Quicktime: rtsp://192.168.1.128:554/live2.sdp

Click **Exit**

Double-click **DCS-6111** in the Installation Wizard window to launch the camera's web configuration page.

Note: *Please see the user manual for more information.*


Installation Wizard 2
D-Link
IP Camera Installation
Manual Setup
Refresh Devices
Access Information
Firmware Upgrade
Restore Default
About
Model No:DCS-3415
P/N: BCS3415ANA...A1
S/N: D5XXXXXXXXX
MAC:XXXXXXXXXXXX
H/W Ver.:XX F/W Ver.:X.XX
MADE IN TAIWAN

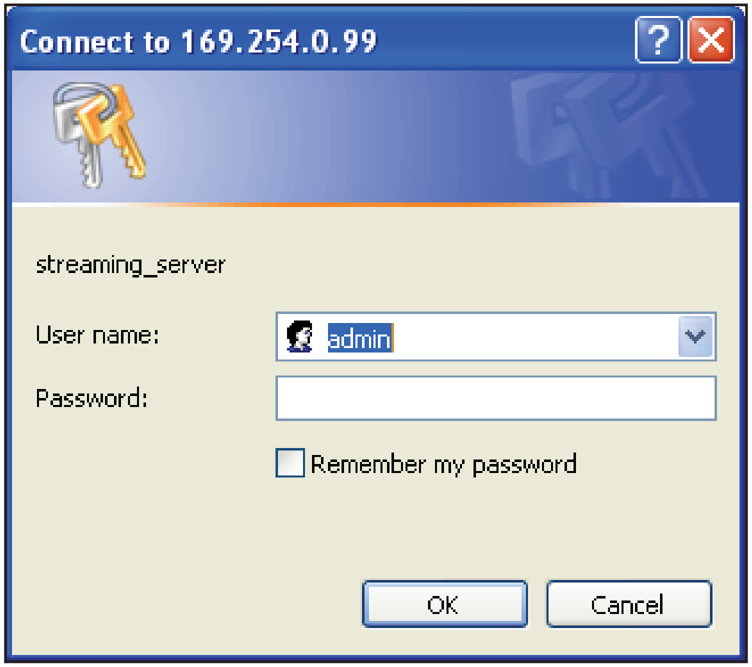
MAC	IP Address	Model
00-1C-F0-78-CC-5C	192.168.0.131	DCS-3110
00-1C-F0-79-08-1A	192.168.0.135	DCS-6111
00-13-46-DB-2E-73	192.168.0.125	DCS-2120
00-13-46-DB-56-C8	192.168.0.143	DCS-5220

Please check the MAC and model name in the product label of your device first.
Then, you can start to link to your device and show the main screen by double clicking the item in the above selection list.

If you are not able to find your device in the above selection list, please make sure all cables are properly connected to your device and then click on the "Refresh Devices" button.

You can find the product label in the rear/bottom part of your device.

Enter **admin** as the default username and leave the password blank by default. Click **OK** to continue.


Connect to 169.254.0.99
OK
Cancel

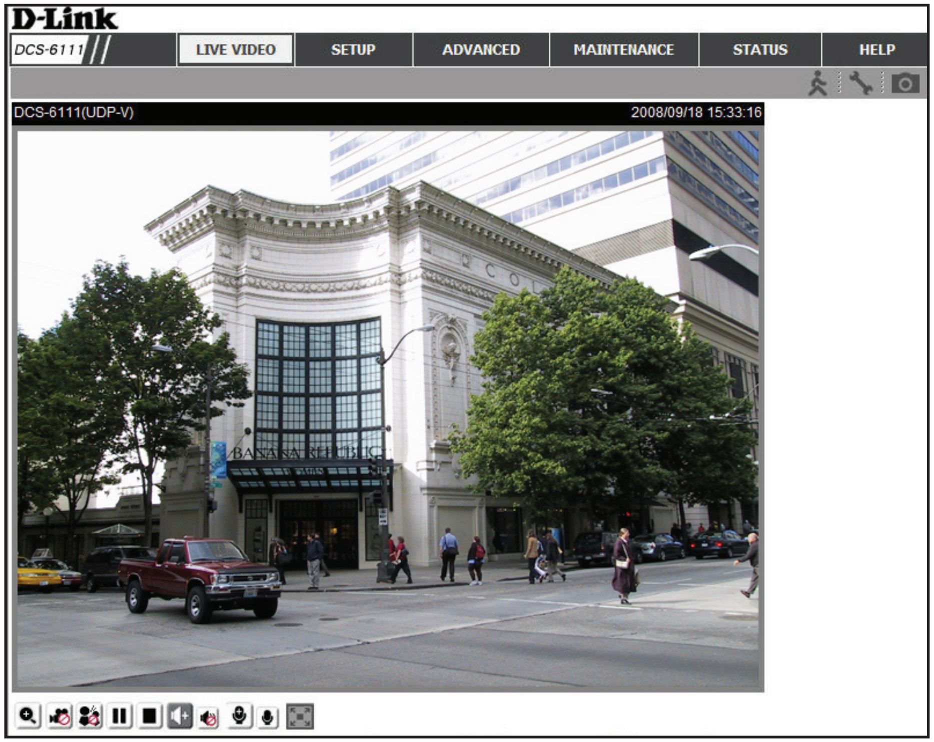
streaming_server

User name: admin

Password:

☐ Remember my password

This section shows your camera's live video. You can configure your settings using the buttons in the window. For more information on using the web configuration, please refer to the user manual.


D-Link
DCS-6111
LIVE VIDEO
SETUP
ADVANCED
MAINTENANCE
STATUS
HELP
DCS-6111(UDP-V)
2008/09/18 15:33:16

Adjusting the Lens

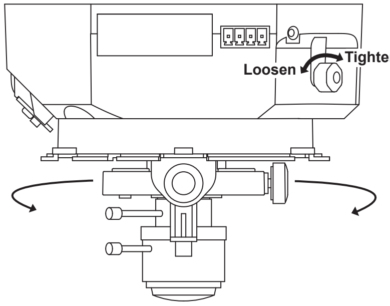
Based on the live image retrieved from the camera, adjust the camera lens by performing the following procedures:

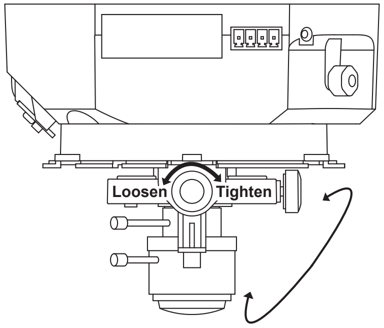
Adjusting the Viewing Angle

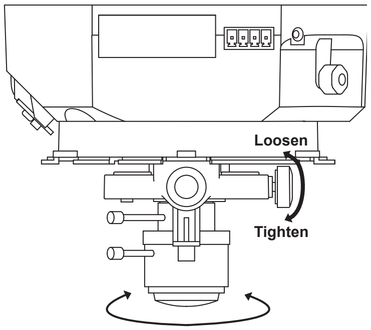
Loosen the pan screw and turn the lens module left and right until the desired position is achieved. Tighten the pan screw once completed.

Loosen the tilt screws on both sides of the camera, and turn the lens module up and down until the desired position is achieved; tighten the tilt screws once completed.

Loosen the image adjustment screw and turn the lens to adjust the network camera’s image until the desired orientation is achieved, tighten the image adjustment screw once completed.



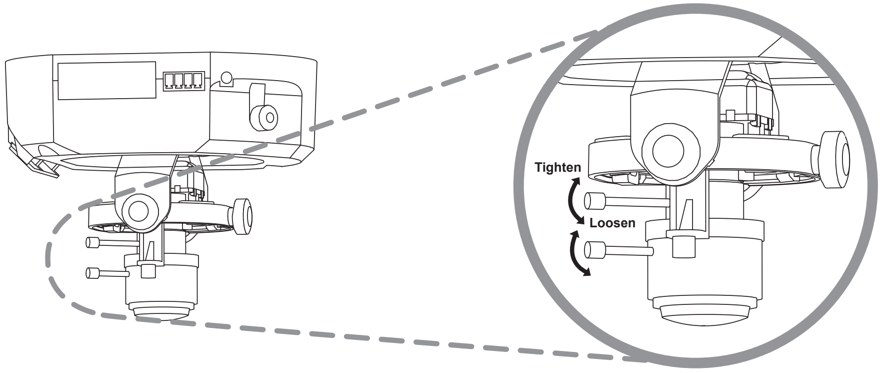




Adjusting Zoom and Focus

Loosen the zoom controller and adjust the zoom factor by moving the controller left and right until the desired range is achieved; tighten the zoom controller once completed.

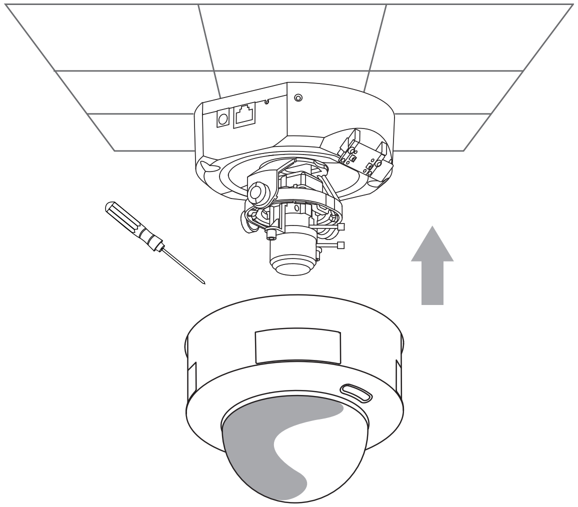
Loosen the focus controller and adjust the focus range by moving the controller left and right until the image is clear; tighten the focus controller once completed.



Attaching the Enclosure

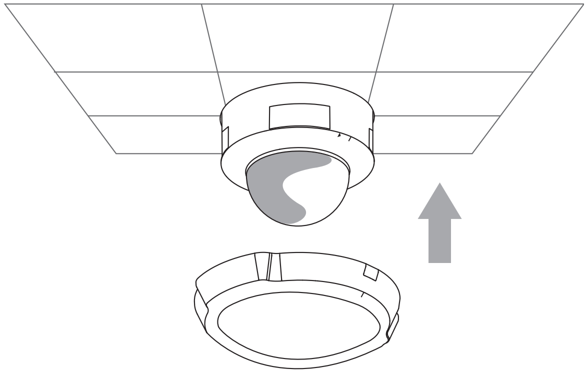
Once the lens is properly adjusted, rearrange the light shield so that it will not obstruct the lens during surveillance.

Place the dome enclosure over the network camera so that the LED sticker on the dome enclosure is properly aligned with the camera's LED. Insert the supplied screws into the two holes located at the base of the dome enclosure, tighten until secure.



Place the ring enclosure over the dome enclosure. Once placed, gently turn the ring enclosure clockwise until it locks and is securely attached to the dome enclosure.

Note: *When attaching the ring enclosure, be sure to first align the line on the ring enclosure with the triangle on the dome enclosure. When attachment is successfully made, the line on the ring enclosure will be aligned with the line on the dome enclosure.*

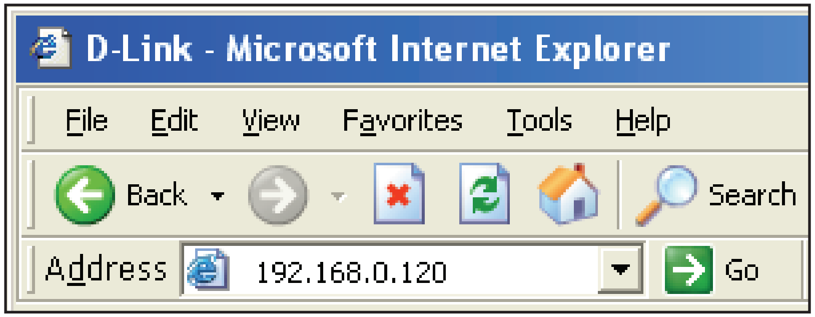


Web-based Configuration Utility

This section will show you how to configure your new D-Link Network Camera using the Web-based Configuration Utility.

To access the configuration utility, open a web-browser such as Internet Explorer and enter the IP address of your Network Camera (http://192.168.0.120)

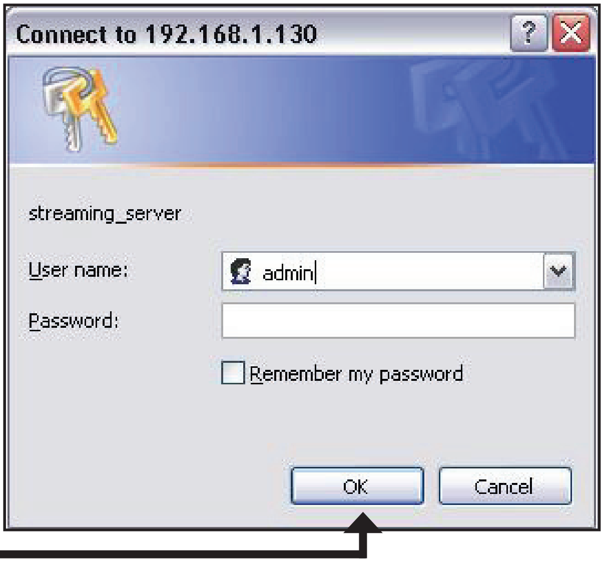
Note: *In the example, this address is 192.168.0.120. Your address may differ.*


D-Link - Microsoft Internet Explorer
File
Edit
View
Favorites
Tools
Help
Back
Search
Address
Go

192.168.0.120

Type **Admin** in the user name field and leave the password blank by default.

Note: *You may refer to page 71 to change the password for your admin account.*


Connect to 192.168.1.130
?
OK
Cancel

streaming_server

User name: admin

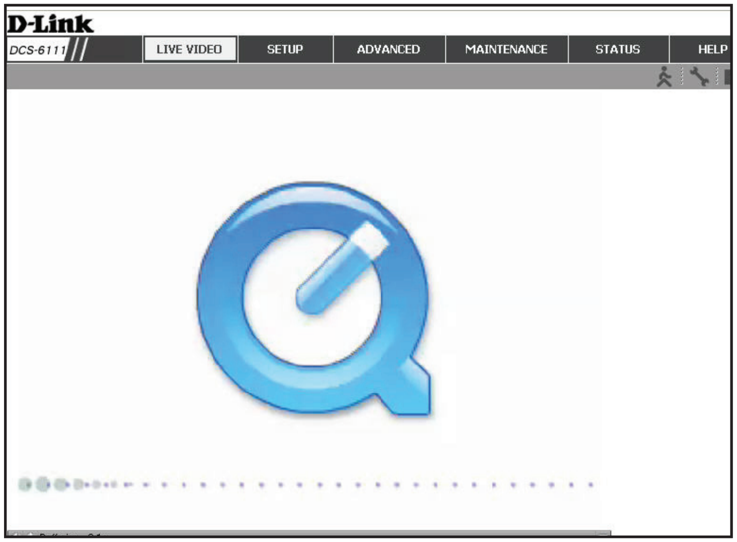
Password:

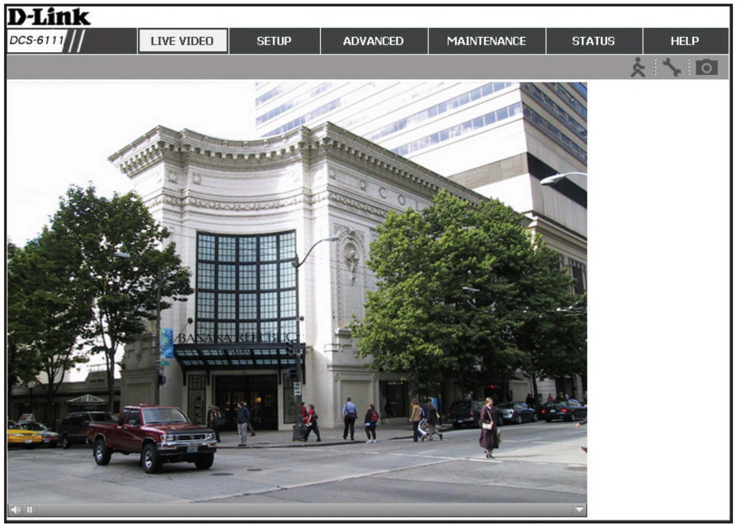
☐ Remember my password

Click **OK**

Live Video

As seen by Mozilla Firefox and Netscape users, Quick Time player is invoked to stream the live video.


D-Link
DCS-6111
LIVE VIDEO
SETUP
ADVANCED
MAINTENANCE
STATUS
HELP


D-Link
DCS-6111
LIVE VIDEO
SETUP
ADVANCED
MAINTENANCE
STATUS
HELP

Using RTSP Players

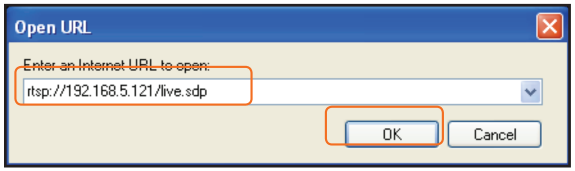
Use one of the following media players that support RTSP streaming to view MPEG-4 streaming media.

- Quick Time Player
- Real Player
- VLC media player
- mpegable Player
- pvPlayer

1. Launch a RTSP player.
2. Choose File > Open URL.
3. Type the URL command in the text box and then click OK.
   URL command = rtsp://<ip address of your camera>:<rtsp port>/<access name for stream1 or stream2>

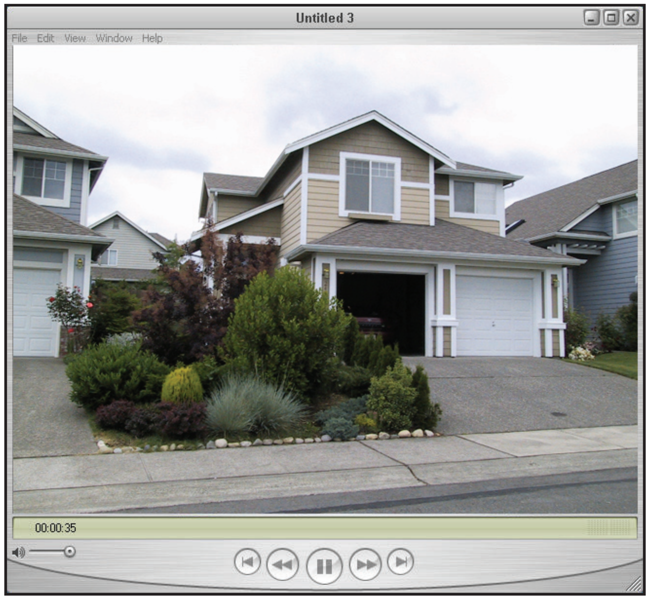
Note: *Please refer to pages 44-45 for the RSTP port settings and streaming files.*

For example:



Enter an Internet URL to open: rtsp://192.168.5.121/live.sdp

4. You can view the live video in your player, as shown in the figure.



Using 3GPP Mobile Phones

To view streaming media using mobile phones, make sure the Network Camera is setup on the Internet.

To utilize this feature, please check the Network Settings for your camera.

1. Most of the players on 3GPP mobile phones do not support RTSP authentication. Make sure the authentication mode of RTSP streaming is set to **Disable.** For more information, see page 44.
2. The 3G network bandwidth is limited, therefore users cannot use large size videos. Please set the video and audio streaming parameters as listed below. For more information, see **Audio and Video** on page 51.

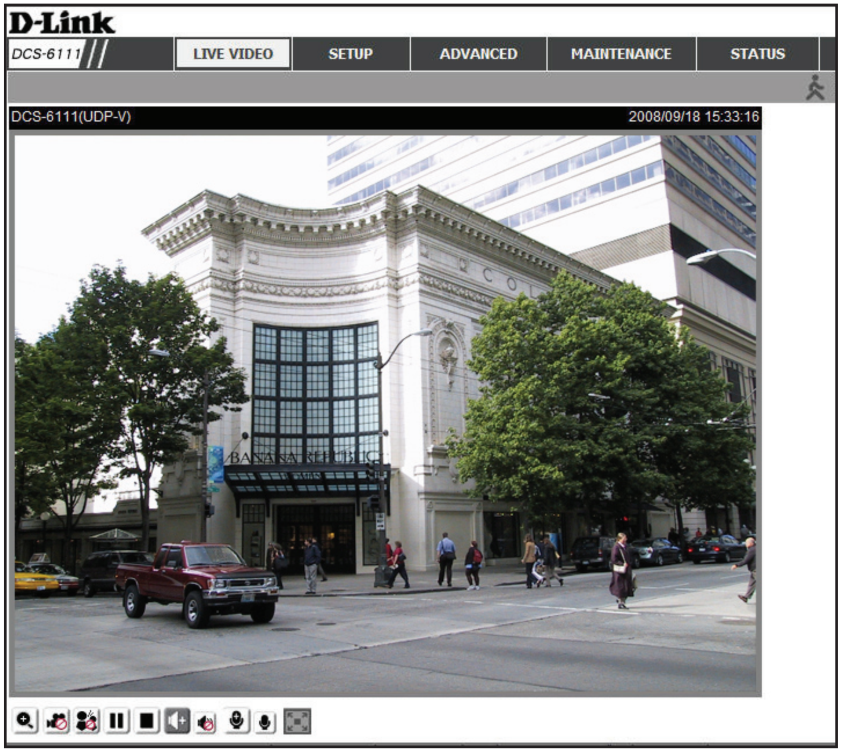
Video Mode	MPEG-4
Frame size	176 x 144
Maximum frame rate	5 fps
Intra frame period	1S
Video quality (Constant bit rate)	40kbps
Audio type (GSM-AMR)	12.2kbps

3. Set the RTSP port to 554, since most ISPs and players do not support other port numbers.
4. Launch the players on 3GPP mobile phones, (ex. Real Player). Type the URL command in the player.

   URL Command = rtsp://<public ip address of your camera>:<rtsp port>/<access name for stream1/stream2>

Camera

This section shows your camera’s live video. You can configure the settings using the buttons listed below.

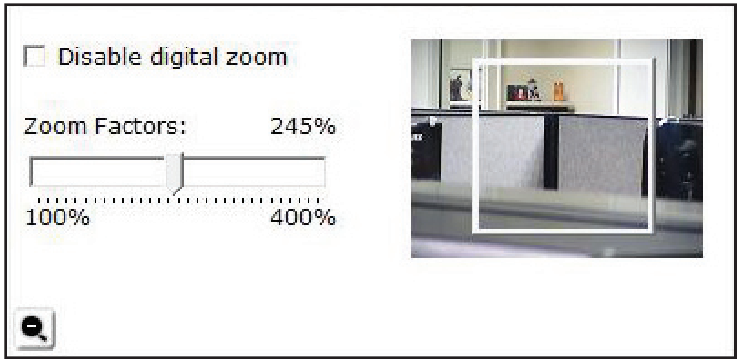

D-Link
DCS-6111
LIVE VIDEO
SETUP
ADVANCED
MAINTENANCE
STATUS
DCS-6111(UDP-V)
2008/09/18 15:33:16

Logout: Logout the camera server and close the browser.

Client Settings: Click this button to access the Client Settings.

Snapshot: Capture a still picture of a video.

Enable/Disable the digital zoom feature. After selecting this icon, a small pop-up window will appear (see below).



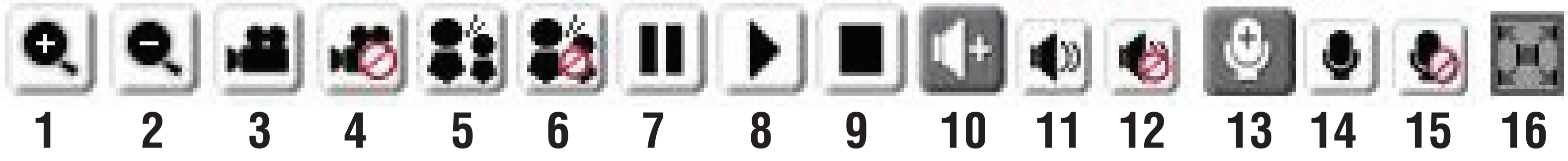
☐ Disable digital zoom

Zoom Factors: 245%

Disable Digital Zoom: Select this to disable the digital zoom feature.

Zoom Factors: Adjust the threshold of the zoom factor. You can also adjust and position the zoom area by dragging the box in the window.

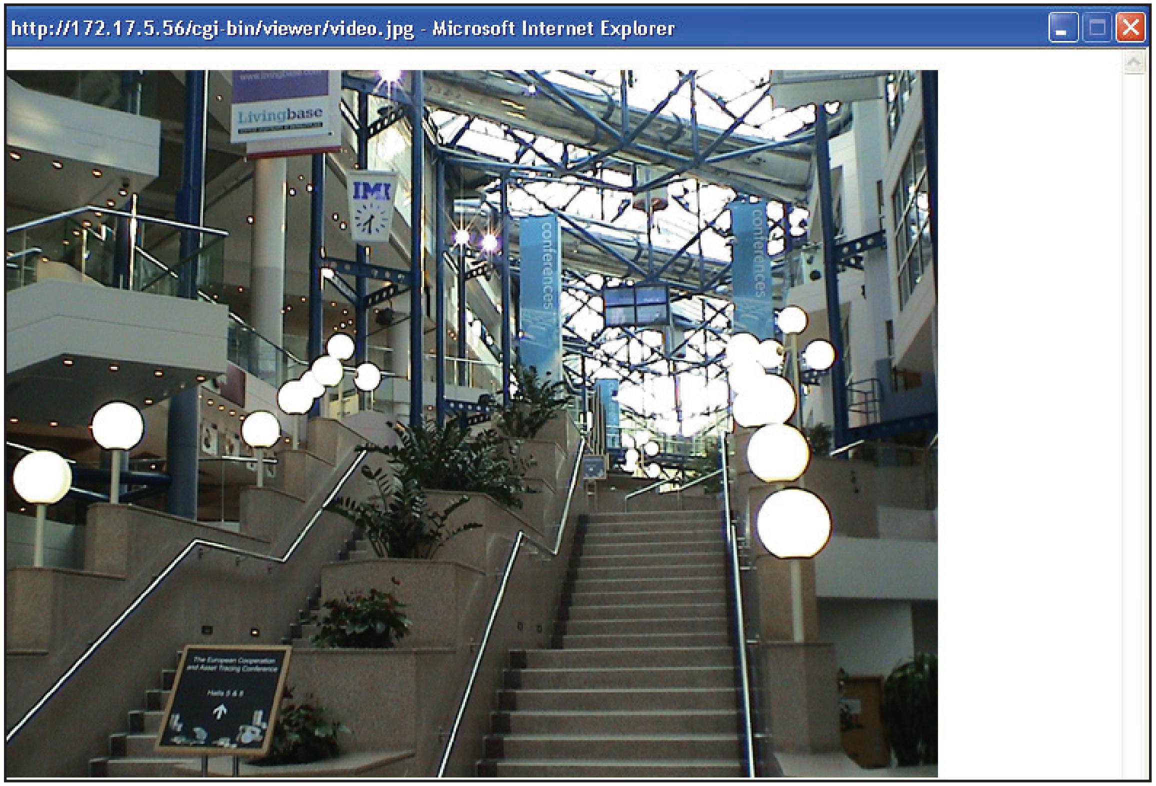
Click this icon to hide the window.



1/2	Digital Zoom - Refer to the previous page for more information.
3/4	Start/Stop Recording - Click (#3) to start recording. Video clips will be recorded in MP4 format to your computer. Press the button again (#4) to stop recording. If you close your web browser, the video will stop recording.
5/6	Talk/Stop Talk - Click this button (#5) to talk to people around the Network Camera if there is an external speaker connected to the camera and you have a microphone connected to your computer. Press the icon again (#6) to stop talking or disable this function.
7/8	Resume/Pause - Click this button (#8) to start or resume the transmission of video streaming. Click the button again (#7), the video will pause.
9	Stop - Click to stop the transmission of video streaming. Click the resume button (#8) to begin streaming.
10	Speaker Volume - When the mute function is not active, move the slider bar to adjust the volume of the speakers that are connected to your network camera.
11/12	Speaker Mute/Unmute - Click (#12) to mute the external speaker that is connected to the network camera. Press again (#11) to unmute the speaker.
13	Microphone Level - When the mute function is not active, move the slider bar to adjust the level of the microphone that is connected to your network camera (external).
14/15	Microphone Mute/Unmute - Click (#15) to turn off the microphone (external) that is connected to your network camera. Press again (#14) to turn the microphone back on.
16	Full screen: To enlarge the video to full screen.

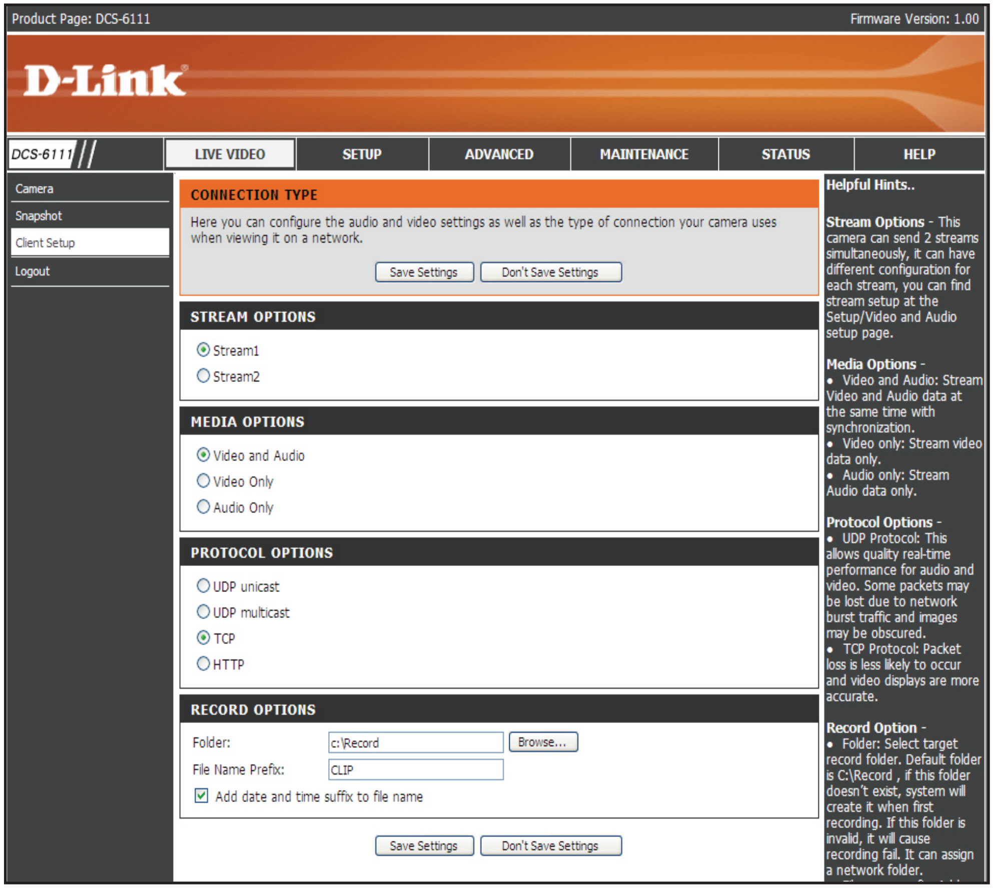
Snapshot

This page shows a snapshot image of a live video taken from DCS-6111 network camera.


http://172.17.5.56/cgi-bin/viewer/video.jpg - Microsoft Internet Explorer

Client Setup

Select 🔧 to access this section. To configure the settings for media streaming and recording, please read the following definitions.



CONNECTION TYPE

Here you can configure the audio and video settings as well as the type of connection your camera uses when viewing it on a network.

STREAM OPTIONS

● Stream1
○ Stream2

MEDIA OPTIONS

● Video and Audio
○ Video Only
○ Audio Only

PROTOCOL OPTIONS

○ UDP unicast
○ UDP multicast
● TCP
○ HTTP

RECORD OPTIONS

Folder: c:\Record
File Name Prefix: CLIP
☑ Add date and time suffix to file name

Helpful Hints..

Stream Options - This camera can send 2 streams simultaneously, it can have different configuration for each stream, you can find stream setup at the Setup/Video and Audio setup page.

Media Options -
- Video and Audio: Stream Video and Audio data at the same time with synchronization.
- Video only: Stream video data only.
- Audio only: Stream Audio data only.

Protocol Options -
- UDP Protocol: This allows quality real-time performance for audio and video. Some packets may be lost due to network burst traffic and images may be obscured.
- TCP Protocol: Packet loss is less likely to occur and video displays are more accurate.

Record Option -
- Folder: Select target record folder. Default folder is C:\Record , if this folder doesn't exist, system will create it when first recording. If this folder is invalid, it will cause recording fail. It can assign a network folder.

Stream Options: Select which video stream profile to use.

Media Options: There are 3 selectable Media Options for your stream profile. The Default setting is **Video and Audio**.

Protocol Options: There are 4 protocols for you to choose for video streaming.

UDP Protocol: This is recommended because it is an ideal protocol for transmitting real-time audio and video data, which can tolerate some lost packets.

UDP Unicast: Stream to a single computer.

UDP Multicast Stream to multiple computers using multicast streaming.

TCP: Provides higher quality video streaming than UDP and provides error correction. However, transmission speed will be reduced.

HTTP Protocol: Offers the highest image and video quality. However, packet loss will diminish image quality when bandwidth becomes restricted. If the network is protected by a firewall and it opens only HTTP port (80), HTTP protocol must be selected. In this mode, audio is disabled and only video can be viewed. UDP connections will not be available to remote users if all four ports have not been forwarded (as shown on page 46). Only the HTTP port must be forwarded for remote users to make an HTTP connection (video only).

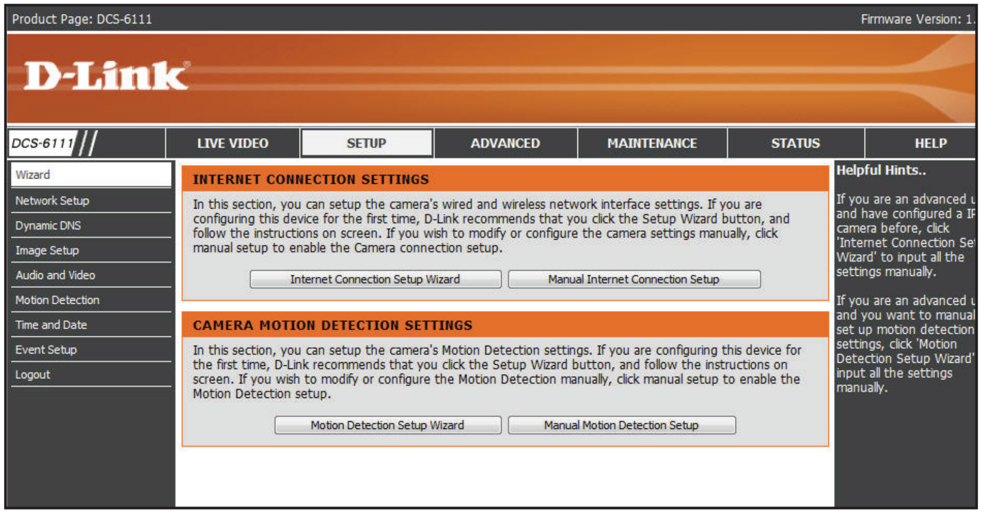
Record Options: Allows the user to specify a destination folder and prefix filename for the recorded video.

Setup

Wizard

To quickly configure your network camera, click **Internet Connection Setup Wizard**. Otherwise, click **Manual Internet Connection Setup** to manually configure your network camera.

To quickly configure your network camera's motion detection settings, click **Motion Detection Setup Wizard** and skip to page 38. If you want to enter your settings without running the wizard, click **Manual Motion Detection Setup** and skip to page 41.


Product Page: DCS-6111
Firmware Version: 1.
D-Link
DCS-6111
LIVE VIDEO
SETUP
ADVANCED
MAINTENANCE
STATUS
HELP
Wizard
Network Setup
Dynamic DNS
Image Setup
Audio and Video
Motion Detection
Time and Date
Event Setup
Logout
Internet Connection Setup Wizard
Manual Internet Connection Setup
Motion Detection Setup Wizard
Manual Motion Detection Setup

INTERNET CONNECTION SETTINGS

In this section, you can setup the camera's wired and wireless network interface settings. If you are configuring this device for the first time, D-Link recommends that you click the Setup Wizard button, and follow the instructions on screen. If you wish to modify or configure the camera settings manually, click manual setup to enable the Camera connection setup.

CAMERA MOTION DETECTION SETTINGS

In this section, you can setup the camera's Motion Detection settings. If you are configuring this device for the first time, D-Link recommends that you click the Setup Wizard button, and follow the instructions on screen. If you wish to modify or configure the Motion Detection manually, click manual setup to enable the Motion Detection setup.

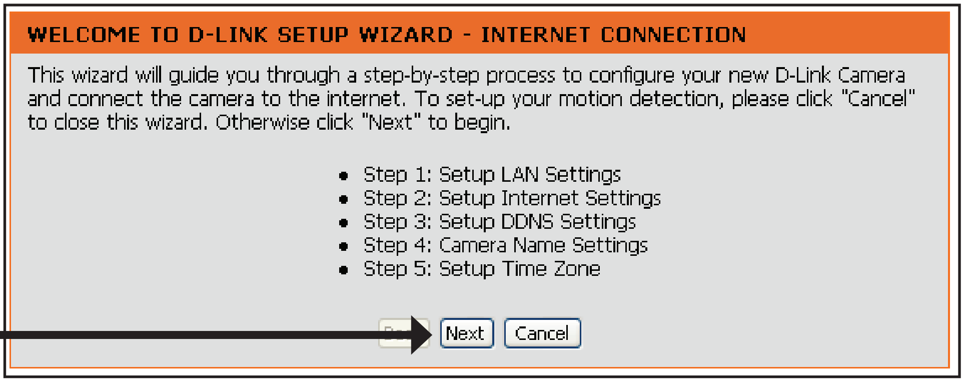
Helpful Hints..

If you are an advanced u
and have configured a IP
camera before, click
'Internet Connection Se
Wizard' to input all the
settings manually.

If you are an advanced u
and you want to manual
set up motion detection
settings, click 'Motion
Detection Setup Wizard'
input all the settings
manually.

Internet Connection Setup Wizard

This wizard will guide you through a step-by-step process to configure your new D-Link Camera and connect the camera to the internet. Click **Next** to continue.


Next
Cancel

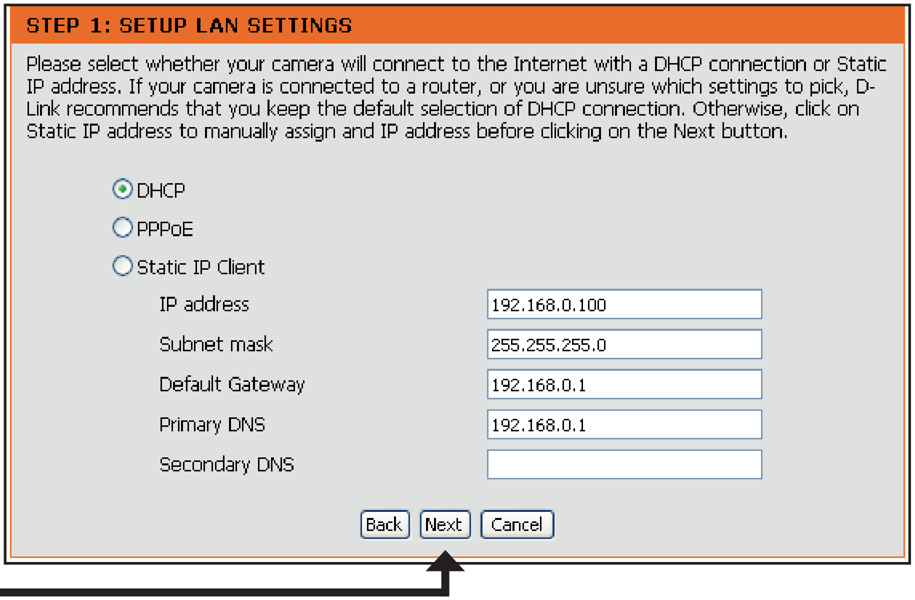
WELCOME TO D-LINK SETUP WIZARD - INTERNET CONNECTION

This wizard will guide you through a step-by-step process to configure your new D-Link Camera and connect the camera to the internet. To set-up your motion detection, please click "Cancel" to close this wizard. Otherwise click "Next" to begin.

- Step 1: Setup LAN Settings
- Step 2: Setup Internet Settings
- Step 3: Setup DDNS Settings
- Step 4: Camera Name Settings
- Step 5: Setup Time Zone

Click **Next**

Select **DHCP** if you are unsure which settings to pick. Click **Next** to continue and skip to page 35.



STEP 1: SETUP LAN SETTINGS

Please select whether your camera will connect to the Internet with a DHCP connection or Static IP address. If your camera is connected to a router, or you are unsure which settings to pick, D-Link recommends that you keep the default selection of DHCP connection. Otherwise, click on Static IP address to manually assign and IP address before clicking on the Next button.

● DHCP

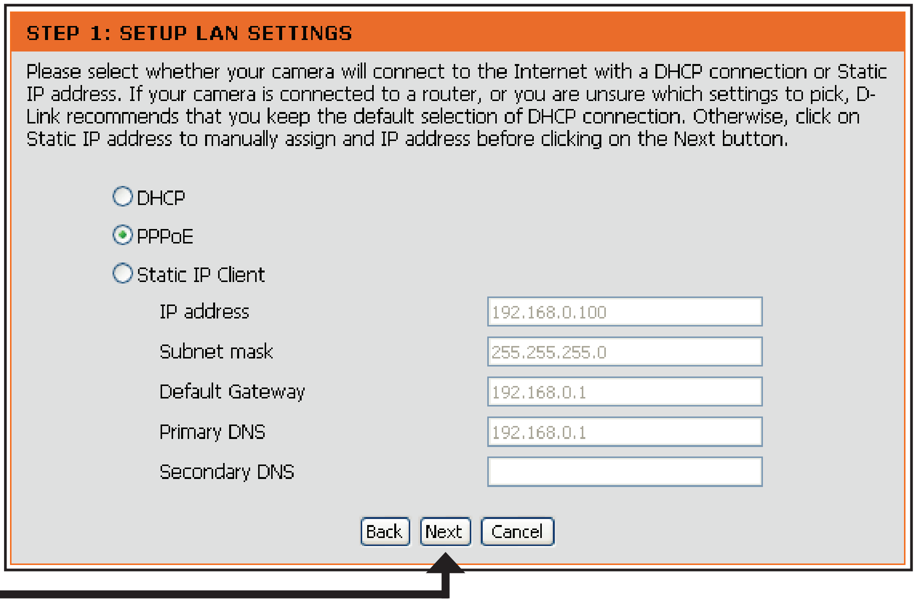
○ PPPoE

○ Static IP Client

IP address	192.168.0.100
Subnet mask	255.255.255.0
Default Gateway	192.168.0.1
Primary DNS	192.168.0.1
Secondary DNS	

Click Next

Select **PPPoE** if the camera is directly connected to the Internet through a DSL modem and your ISP (Internet Service Provider) requires you to use PPPoE for the Internet connection. Click **Next** to continue and skip to Step 2 on page 35.



STEP 1: SETUP LAN SETTINGS

Please select whether your camera will connect to the Internet with a DHCP connection or Static IP address. If your camera is connected to a router, or you are unsure which settings to pick, D-Link recommends that you keep the default selection of DHCP connection. Otherwise, click on Static IP address to manually assign and IP address before clicking on the Next button.

○ DHCP

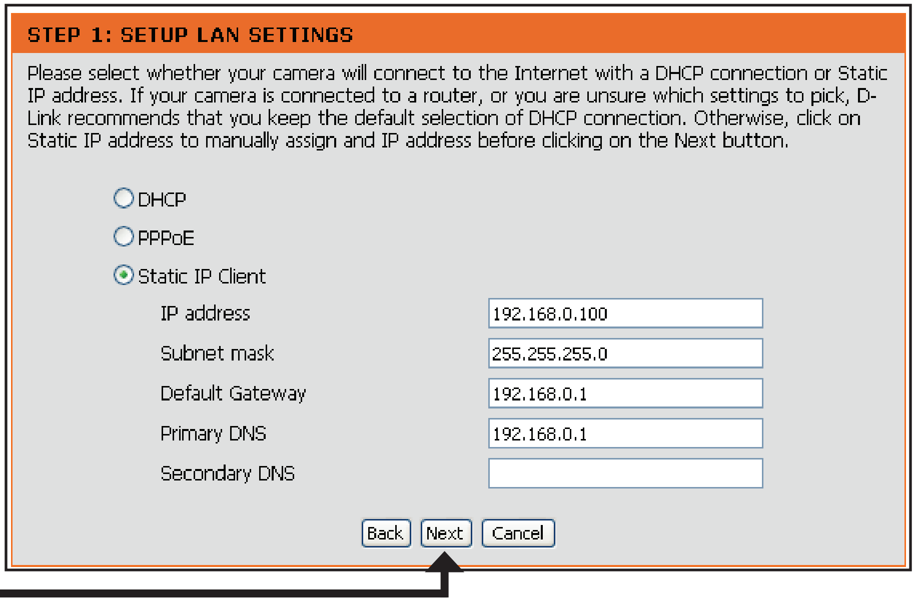
● PPPoE

○ Static IP Client

IP address	192.168.0.100
Subnet mask	255.255.255.0
Default Gateway	192.168.0.1
Primary DNS	192.168.0.1
Secondary DNS	

Click Next

Select **Static IP** if your Internet Service Provider has provided you with connection settings, or you wish to set a static address within your home network. Enter all the relevant LAN information. Click **Next** to continue.



STEP 1: SETUP LAN SETTINGS

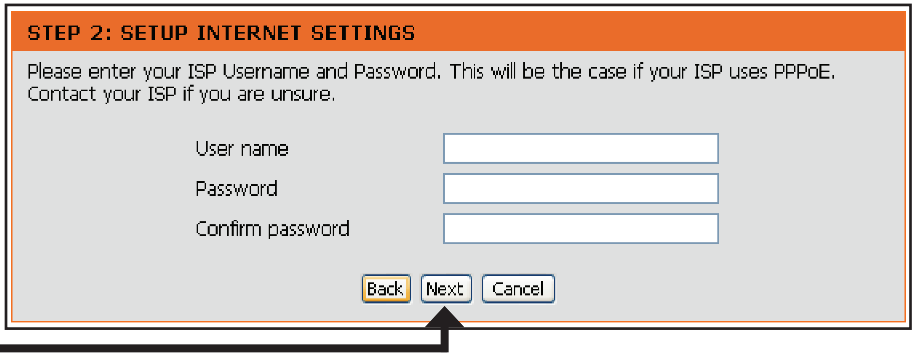
Please select whether your camera will connect to the Internet with a DHCP connection or Static IP address. If your camera is connected to a router, or you are unsure which settings to pick, D-Link recommends that you keep the default selection of DHCP connection. Otherwise, click on Static IP address to manually assign and IP address before clicking on the Next button.

○ DHCP
○ PPPoE
● Static IP Client

IP address	192.168.0.100
Subnet mask	255.255.255.0
Default Gateway	192.168.0.1
Primary DNS	192.168.0.1
Secondary DNS	

Click **Next**

If you have selected PPPoE, enter your username and password. Click **Next** to continue.



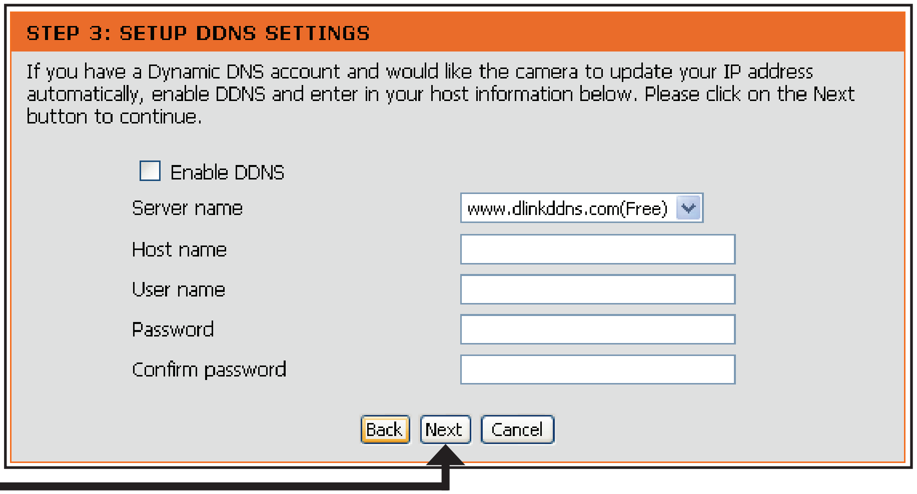
STEP 2: SETUP INTERNET SETTINGS

Please enter your ISP Username and Password. This will be the case if your ISP uses PPPoE. Contact your ISP if you are unsure.

User name	
Password	
Confirm password	

Click **Next**

With a Dynamic DNS account, the camera automatically updates your IP address. To enable **DDNS**, enter your host information. Click **Next** to continue.



STEP 3: SETUP DDNS SETTINGS

If you have a Dynamic DNS account and would like the camera to update your IP address automatically, enable DDNS and enter in your host information below. Please click on the Next button to continue.

☐ Enable DDNS

Server name: www.dlinkddns.com(Free)

Host name

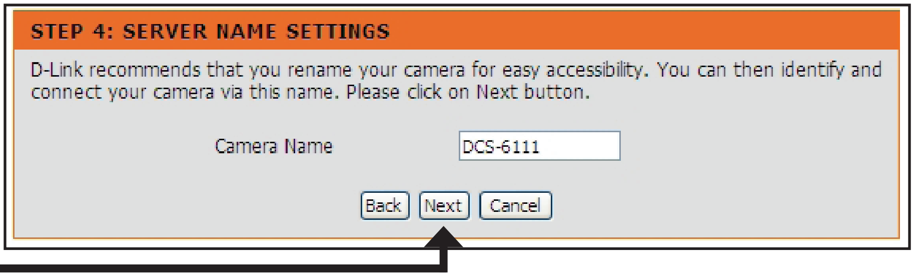
User name

Password

Confirm password

Click **Next**

Enter a name for your camera and click **Next** to continue.



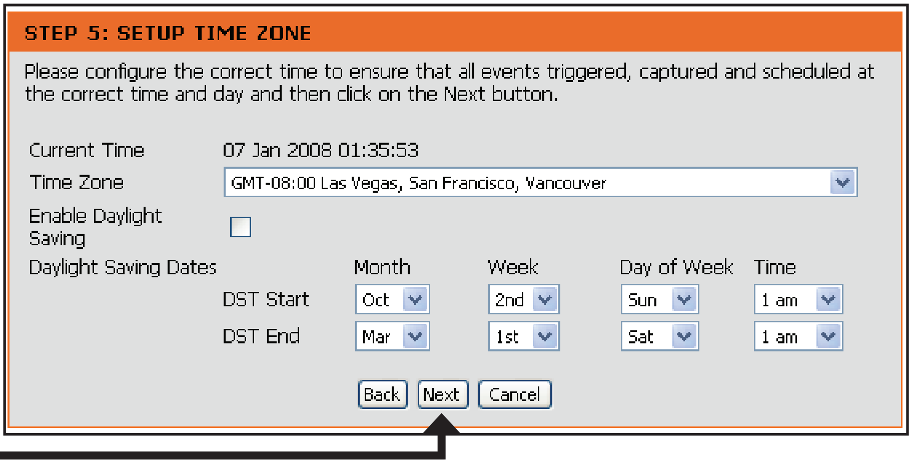
STEP 4: SERVER NAME SETTINGS

D-Link recommends that you rename your camera for easy accessibility. You can then identify and connect your camera via this name. Please click on Next button.

Camera Name: DCS-6111

Click **Next**

Configure the correct time to ensure all the events will be triggered and scheduled at the correct time.Click **Next** to continue.



STEP 5: SETUP TIME ZONE

Please configure the correct time to ensure that all events triggered, captured and scheduled at the correct time and day and then click on the Next button.

Current Time: 07 Jan 2008 01:35:53

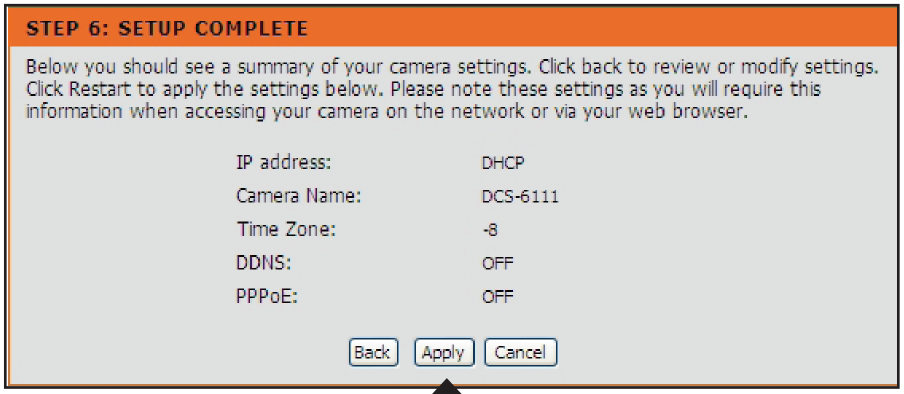
Time Zone: GMT-08:00 Las Vegas, San Francisco, Vancouver

Enable Daylight Saving: ☐

Daylight Saving Dates	Month	Week	Day of Week	Time
DST Start	Oct	2nd	Sun	1 am
DST End	Mar	1st	Sat	1 am

Click **Next**

Once you have selected **Dynamic**, **PPPoE**, or **Static**, you will see a summary of your camera's settings. Click **Apply** to save and activate your settings.



STEP 6: SETUP COMPLETE

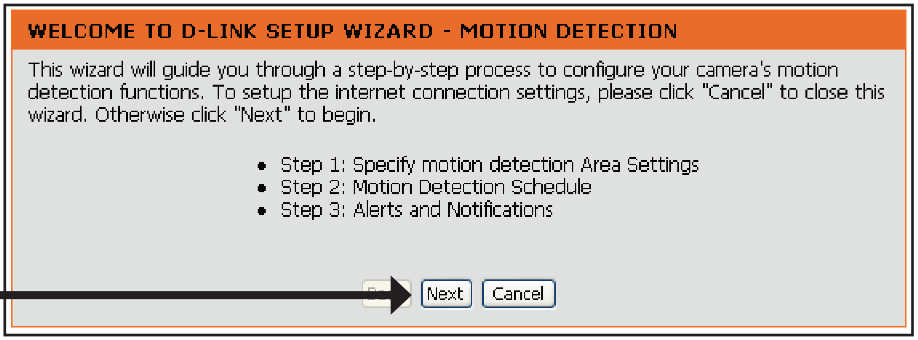
Below you should see a summary of your camera settings. Click back to review or modify settings. Click Restart to apply the settings below. Please note these settings as you will require this information when accessing your camera on the network or via your web browser.

IP address: DHCP
Camera Name: DCS-6111
Time Zone: -8
DDNS: OFF
PPPoE: OFF

Click **Apply**

Motion Detection Setup Wizard

This wizard will guide you through a step-by-step process to configure your new D-Link Camera's motion detection functions. Click **Next** to begin the process.



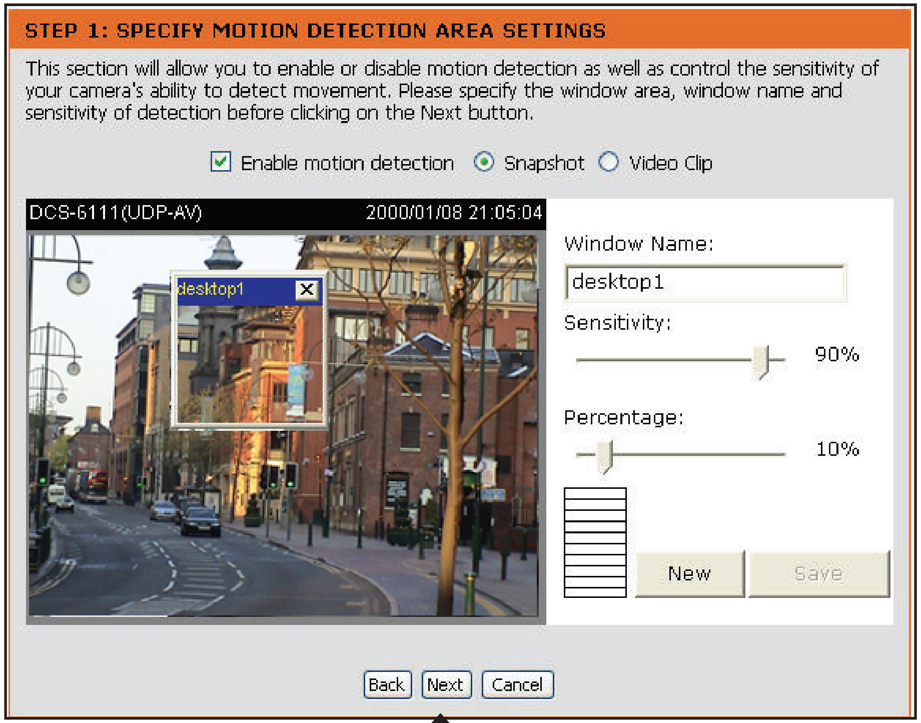
WELCOME TO D-LINK SETUP WIZARD - MOTION DETECTION

This wizard will guide you through a step-by-step process to configure your camera's motion detection functions. To setup the internet connection settings, please click "Cancel" to close this wizard. Otherwise click "Next" to begin.

- Step 1: Specify motion detection Area Settings
- Step 2: Motion Detection Schedule
- Step 3: Alerts and Notifications

Click **Next**

This screen will allow you to enable or disable the motion detection feature. Click **New** to create and draw the motion detection window. Then configure the type of recording (snapshot, video clip), **Window Name**, **Sensitivity** of detection, and **Percentage** of the window required in order to set off motion detection.Click **Next** to continue.



STEP 1: SPECIFY MOTION DETECTION AREA SETTINGS

This section will allow you to enable or disable motion detection as well as control the sensitivity of your camera's ability to detect movement. Please specify the window area, window name and sensitivity of detection before clicking on the Next button.

☑ Enable motion detection ● Snapshot ○ Video Clip

DCS-6111(UDP-AV) 2000/01/08 21:05:04

Window Name: desktop1

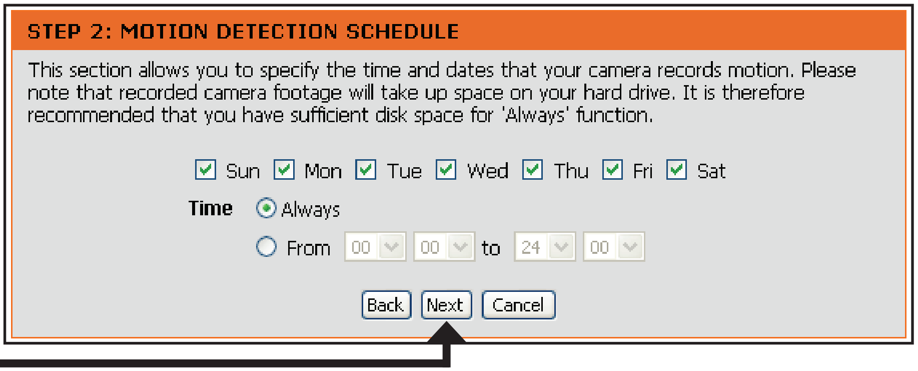
Sensitivity: 90%

Percentage: 10%

Click **Next**

Select the recording time and date for your camera. Click **Next** to continue.

Note: *Recording camera footage will take up space on your hard drive. It is recommended that you have sufficient disk space for* ***Always*** *function.*



STEP 2: MOTION DETECTION SCHEDULE

This section allows you to specify the time and dates that your camera records motion. Please note that recorded camera footage will take up space on your hard drive. It is therefore recommended that you have sufficient disk space for 'Always' function.

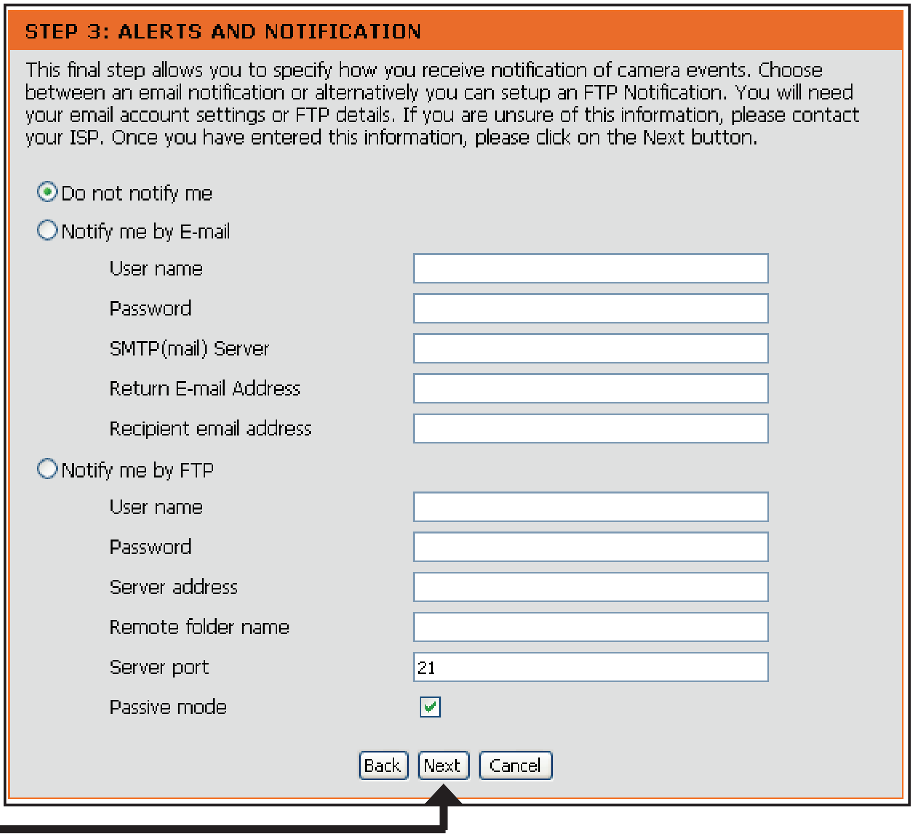
☑ Sun ☑ Mon ☑ Tue ☑ Wed ☑ Thu ☑ Fri ☑ Sat

Time ● Always

○ From 00 00 to 24 00

Click **Next**

This step allows you to specify your event notification, either via email or FTP. Enter the relevant information of your email account or FTP settings and then click **Next** to continue.



STEP 3: ALERTS AND NOTIFICATION

This final step allows you to specify how you receive notification of camera events. Choose between an email notification or alternatively you can setup an FTP Notification. You will need your email account settings or FTP details. If you are unsure of this information, please contact your ISP. Once you have entered this information, please click on the Next button.

● Do not notify me

○ Notify me by E-mail

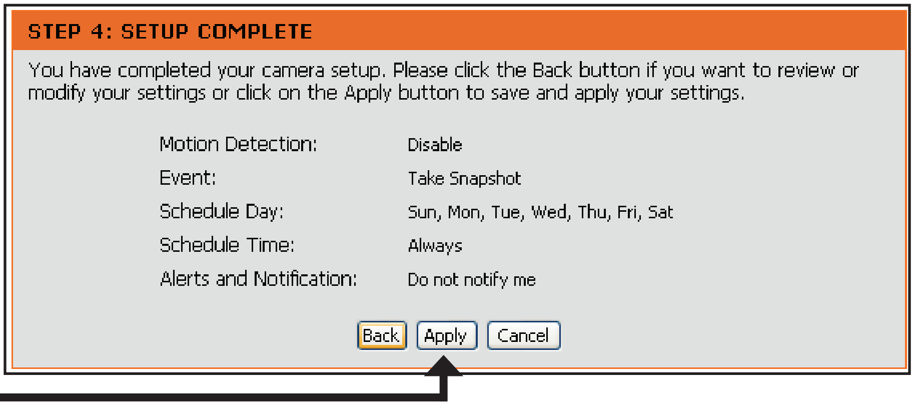
User name	
Password	
SMTP(mail) Server	
Return E-mail Address	
Recipient email address	

○ Notify me by FTP

User name	
Password	
Server address	
Remote folder name	
Server port	21
Passive mode	☑

Click **Next**

You have completed the Motion Detection Wizard. Click **Apply** to activate and save your settings.



STEP 4: SETUP COMPLETE

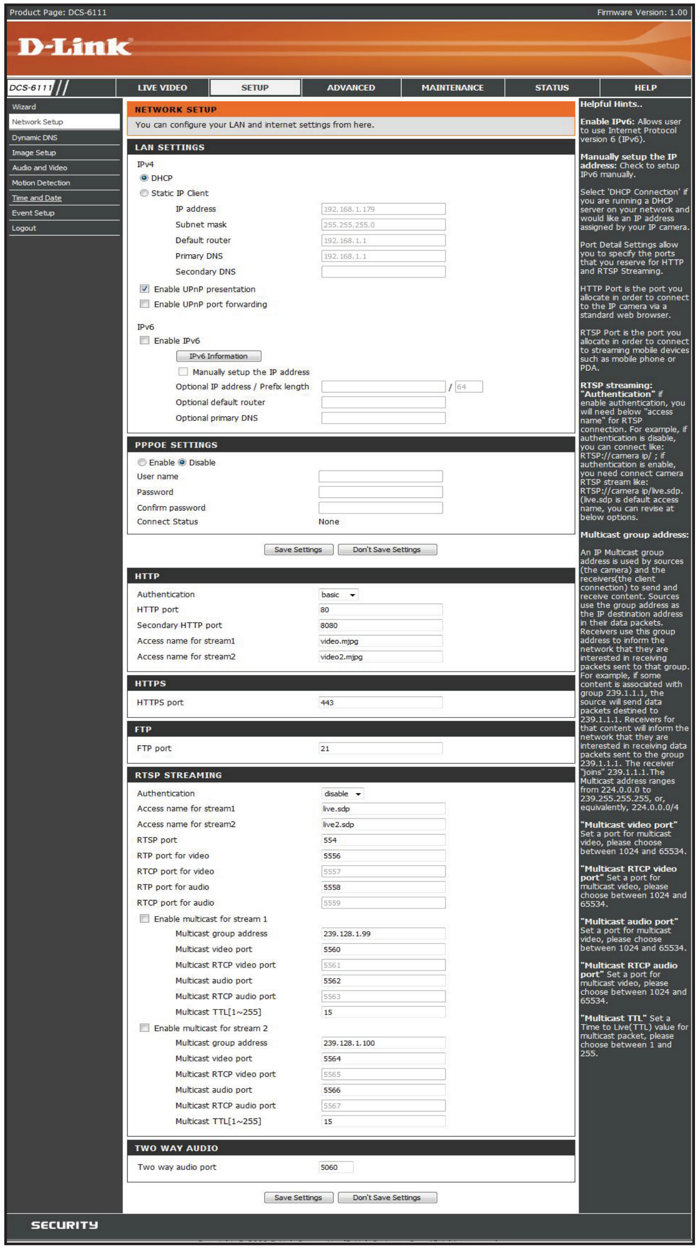
You have completed your camera setup. Please click the Back button if you want to review or modify your settings or click on the Apply button to save and apply your settings.

Motion Detection:	Disable
Event:	Take Snapshot
Schedule Day:	Sun, Mon, Tue, Wed, Thu, Fri, Sat
Schedule Time:	Always
Alerts and Notification:	Do not notify me

Click **Apply**

Network Setup

LAN Settings:	Settings for your local area network.
DHCP:	Select this connection if you have a DHCP server running on your network and would like a dynamic IP address to be assigned to your camera automatically.
Static IP Client:	You may enter a static or fixed IP address for your camera.
IP Address:	Enter an IP address.
Subnet Mask:	The default value is “255.255.255.0.” This helps to determine if the designated IP address is on the same subnet.
Default Gateway:	The gateway used to forward frames to destinations in a different subnet. Invalid gateway settings may cause the failure of transmissions to a different subnet. Usually the IP address of your router.
Primary DNS:	Primary domain name server that translates names to IP addresses.
Secondary DNS:	Secondary domain name server to backup the primary one.
Enable UPnP Presentation:	Allows a user to find, view, and control this camera via a presentation page or “Network Neighborhood” without configuration. How does UPnP work? UPnP™ networking technology provides automatic IP configuration and dynamic discovery of devices added to a network. Services and capabilities offered by networked devices, such as printing and file sharing, are available among each other without bothersome network configuration. In the case of Network Cameras, you will see Network Camera shortcuts at My Network Places.



NETWORK SETUP

You can configure your LAN and internet settings from here.

LAN SETTINGS

IPv4
● DHCP
○ Static IP Client
IP address: 192.168.1.179
Subnet mask: 255.255.255.0
Default router: 192.168.1.1
Primary DNS: 192.168.1.1
Secondary DNS:
☑ Enable UPnP presentation
☐ Enable UPnP port forwarding

IPv6
☐ Enable IPv6
☐ Manually setup the IP address
Optional IP address / Prefix length: / 64
Optional default router:
Optional primary DNS:

PPPOE SETTINGS

○ Enable ● Disable
User name:
Password:
Confirm password:
Connect Status: None

HTTP

Authentication: basic
HTTP port: 80
Secondary HTTP port: 8080
Access name for stream1: video.mjpg
Access name for stream2: video2.mjpg

HTTPS

HTTPS port: 443

FTP

FTP port: 21

RTSP STREAMING

Authentication: disable
Access name for stream1: live.sdp
Access name for stream2: live2.sdp
RTSP port: 554
RTP port for video: 5556
RTCP port for video: 5557
RTP port for audio: 5558
RTCP port for audio: 5559
☐ Enable multicast for stream 1
Multicast group address: 239.128.1.99
Multicast video port: 5560
Multicast RTCP video port: 5561
Multicast audio port: 5562
Multicast RTCP audio port: 5563
Multicast TTL[1~255]: 15
☐ Enable multicast for stream 2
Multicast group address: 239.128.1.100
Multicast video port: 5564
Multicast RTCP video port: 5565
Multicast audio port: 5566
Multicast RTCP audio port: 5567
Multicast TTL[1~255]: 15

TWO WAY AUDIO

Two way audio port: 5060

Helpful Hints..

Enable IPv6: Allows user to use Internet Protocol version 6 (IPv6).

Manually setup the IP address: Check to setup IPv6 manually.

Select 'DHCP Connection' if you are running a DHCP server on your network and would like an IP address assigned by your IP camera.

Port Detail Settings allow you to specify the ports that you reserve for HTTP and RTSP Streaming.

HTTP Port is the port you allocate in order to connect to the IP camera via a standard web browser.

RTSP Port is the port you allocate in order to connect to streaming mobile devices such as mobile phone or PDA.

RTSP streaming: "Authentication" if enable authentication, you will need below "access name" for RTSP connection. For example, if authentication is disable, you can connect like: RTSP://camera ip/ ; if authentication is enable, you need connect camera RTSP stream like: RTSP://camera ip/live.sdp. (live.sdp is default access name, you can revise at below options.

Multicast group address:

An IP Multicast group address is used by sources (the camera) and the receivers(the client connection) to send and receive content. Sources use the group address as the IP destination address in their data packets. Receivers use this group address to inform the network that they are interested in receiving packets sent to that group. For example, if some content is associated with group 239.1.1.1, the source will send data packets destined to 239.1.1.1. Receivers for that content will inform the network that they are interested in receiving data packets sent to the group 239.1.1.1. The receiver "joins" 239.1.1.1.The Multicast address ranges from 224.0.0.0 to 239.255.255.255, or, equivalently, 224.0.0.0/4

"Multicast video port" Set a port for multicast video, please choose between 1024 and 65534.

"Multicast RTCP video port" Set a port for multicast video, please choose between 1024 and 65534.

"Multicast audio port" Set a port for multicast video, please choose between 1024 and 65534.

"Multicast RTCP audio port" Set a port for multicast video, please choose between 1024 and 65534.

"Multicast TTL" Set a Time to Live(TTL) value for multicast packet, please choose between 1 and 255.

Enabling UPnP port forwarding allows the Network Camera to open a secondary HTTP port on the router. You have to add the secondary HTTP port number behind the Network Camera's public address in order to access the Network Camera from the Internet. For example, when the HTTP port is set to 80 and the secondary HTTP port is set to 8080, refer to the list below for the Network Camera's IP address.

From the Internet	In a local area network
http://203.67.124.123:8080	http://192.168.4.160 or http://192.168.4.160:8080

If the PPPoE settings are incorrectly configured or the Internet access is not working, restore the Network Camera to factory default settings.

Enable UPnP Port Forwarding:	Enables the camera to automatically add the port forwarding entry into the router.
Enable IPv6:	Allows users to adopt and deploy IPv6. IPv6 is a new version of IP which is designed to be an evolutionary step from IPv4. IPv6 has a much larger address space than IPv4, which allows flexibility in allocating addresses and routing traffic. The very large IPv6 address space supports 2128 (about 3.4×1038) addresses. IPv6 hosts can configure themselves automatically when connected to a routed IPv6 network using ICMPv6 router discovery messages. If IPv6 stateless address autoconfiguration (SLAAC) proves unsuitable, a host can use stateful configuration (DHCPv6) or be configured manually. In particular, stateless autoconfiguration is not used by routers, these must be configured manually or by other means.
IPv6 Information:	Displays the IPv6 status of the camera.
Manually setup the IP address:	Select to manually setup IPv6.
Optional IP address / Prefix length. :	Enter the IPv6 IP address and its prefix length.

Optional default router : Enter the IPv6 router address.

Optional primary DNS : Enter the IPv6 DNS address.

PPPoE Settings: Enable this setting if your ISP (DSL service) is using PPPoE. You may already have both Username and Password given by your ISP, or you may check with your ISP. The Connect Status will be determined automatically by the system.

HTTP: You may configure two HTTP ports for your camera. HTTP ports allow you to connect to the camera via a standard web browser. These ports can be set to a number other than the default TCP ports 80 and 8080. A corresponding port must be opened on the router. For example, if the port is changed to 1010, users must type in the web browser “http://192.168.0.100:1010” instead of “http://192.168.0.100”.

Authentication: Choose either **Basic** where the password is not encrypted, or **Digest** where the password is encrypted during the transmission to the web server.

Note: *Restart your browser, if you select* ***Digest*** *mode.*

Basic authentication: The password is sent in plain text format; there can be potential risks of being intercepted.
Digest authentication: User credentials are encrypted in MD5 algorithm and thus provide better protection against unauthorized accesses.

HTTP Port: The default value is 80.

Secondary HTTP Port: The default value is 8080.
After you have enabled the Authentication, you will need to configure and use the access name to access your video file. For example, http://camera ip/video.mjpg (video.mjpg is the Access name, you can modify it here)

Access name for stream1: The default name is video.mjpg.

Access name for stream2: The default name is video2.mjpg.

Access name for stream 1 / Access name for stream 2 **:** The access name is used to differentiate the streaming source. When using Mozilla Firefox or Netscape to access the Network Camera, and the video mode is set to JPEG, users will receive continuous JPEG pictures. This technology, known as "server push", allows the Network Camera to feed live pictures to Mozilla Firefox and Netscape. Use the following command to obtain the JPEG file:

```
http://<ip address>:<http port>/<access name for stream1 or stream2>
```

For example, when the access name for stream 1 is set to video.mjpg:

The URL command is **http://192-168-0-051:80/video.mjpg**

1. Launch Mozilla Firefox or Netscape
2. Type the URL command in the address field. Press Enter.
3. The JPEG image will be displayed in your web browser.

HTTPS Port: The default value is 443.

FTP Port: Default port is 21. If you want to change the port number, you will need to specify the port when connecting to the FTP server. For example, FTP://68.5.1.81:60 (if you use port 60 for your FTP server)

RTSP Streaming: This setting enables you to connect to a camera by using streaming mobile device(s), such as a mobile phone or PDA.

Authentication: Select either Basic where the password is not encrypted, or Digest where the password is encrypted during the transmission to the web server. After you have enabled the Authentication, you will need to configure and use the access name to access your video file. RTSP://camera ip/live.sdp (live.sdp is the default access name, you can modify in the section below)

Access name for stream1: The default name is live.sdp.

Access name for stream2: The default name is live2.sdp.

The accessibility of the RTSP streaming for the three authentication modes are listed in the following table.

	Quick Time player	Real Player	VLC media player	mpegable Player	pvPlayer
Disable	O	O	O	O	O
Basic	O	O	X	X	X
Digest	O	X	X	X	X

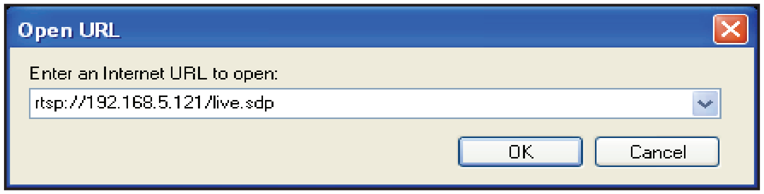
O indicates that the authentication mode is supported by the RTSP player.
X indicates that the authentication mode is NOT supported by the RTSP player.

Access name for stream 1 / Access name for stream 2 : The access name is used to differentiate the streaming source. When using a RTSP player to access the Network Camera, and the video mode is set to MPEG-4, use the following RTSP URL command to request a transmission of streaming data.

rtsp://<ip address>:<rtsp port>/<access name for stream1 or stream2>

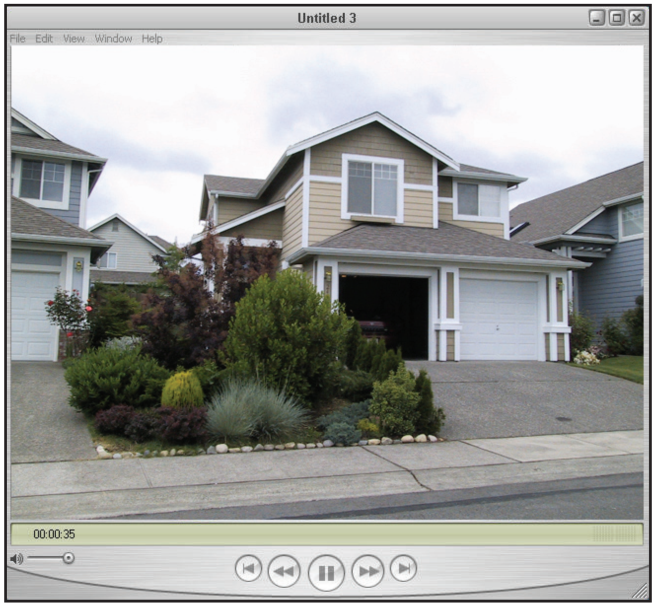
For example, when the access name for stream 1 is set to live.sdp, the URL command is : **rstp://192.168.5.121/live.sdp**

1 : Launch a RTSP player.
2 : Choose File > Open URL. This opens the URL dialog box.
3 **:** Type the URL command in the text box.
For example:



Enter an Internet URL to open: rtsp://192.168.5.121/live.sdp

4 : The live video will be displayed in your player.



RTSP port:	The port number that you use for RSTP streaming, the default port number is 554. RTP (Real Time Protocol) Port is used to streaming audio and video while RTCP (Real Time Control Protocol) port is used to monitor QoS of RTP stream. ***Note:*** *RTP video port and RTP audio port must be an “even” number. The numbers of RTCP video port and RTCP audio port must equal to the numbers of RTP video port and RTP audio port, plus one repetitively.*
RTP port for video:	Default port number is 5556.
RTCP port for video:	Default port number is 5557.
Multicast group address:	You may choose to enable multicast for your camera audio and video streaming so that your cameras (sources) and the receivers (clients) can establish the connection to send and receive contents. An IP Multicast group address is used to send and receive content. Sources use this group address as the destination address while sending their data packets. Receivers use this group address to inform the network that they are interested in receiving packets sent to that group.

	For example, if some content is associated with group 239.1.1.1, the source will send data packets destined to 239.1.1.1. Receivers for that content will inform the network that they are interested in receiving data packets sent to the group 239.1.1.1. The receiver “joins” 239.1.1.1. The Multicast address ranges from 224.0.0.0 to 239.255.255.255, or, equivalently, 224.0.0.0/4
Multicast video port:	Default port number is 5560, or please choose between 1024 and 65534.
Multicast RTCP video port:	Default port number is 5561, or please choose between 1024 and 65534.
Multicast RTCP audio port:	Default port number is 5563, or please choose between 1024 and 65534.
Multicast TTL {1~255]:	Set a Time to Live(TTL) value for multicast packet, please choose between 1 and 255.
Two way audio port:	The two way audio port is set to 5060 by default. It can also be assigned to another port number between 1025 and 65535. This Network Camera supports two way audio communication so that operators can transmit and receive audio simultaneously. By using the external microphone and an external speaker, users can communicate with people present around the Network Camera. ***Note:*** *JPEG only transmits a series of JPEG images to the client. In order to utilize this audio feature, make sure the video mode is set to* **MPEG-4** (refer to page 51) *and the media option is set to* **Video and Audio** (refer to page 32)**.**

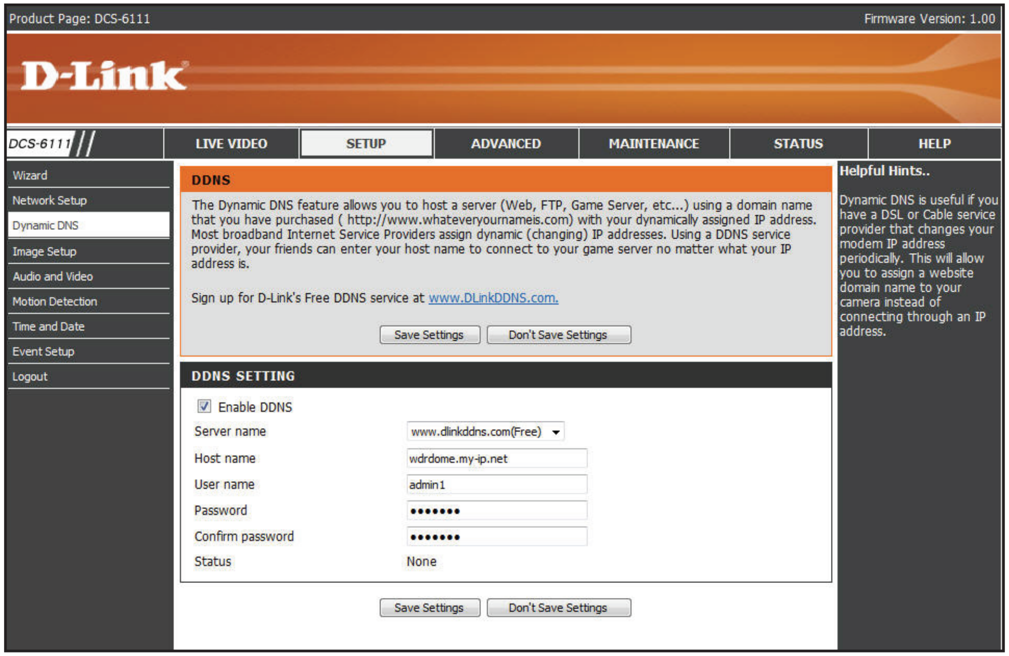
Unicast video transmission delivers a stream through point-to-point transmission. On the other hand, multicast video transmission sends a stream to the multicast group address and allows multiple clients to acquire the stream by requesting a copy from the Multicast group address.

The five ports can be changed between 1025 and 65535. The multicast RTP port must be an even number and the multicast RTCP port is equal to multicast RTP port number plus one; thus will always be an odd number. When the multicast RTP port changes, the multicast RTCP port needs to be changed accordingly.

Dynamic DNS

DDNS (Dynamic Domain Name Server) will hold a DNS host name and synchronize the public IP address of the modem when it has been modified. The username and password are required when using the DDNS service.

Enable DDNS:	Click to enable the DDNS function.
Server Name:	Select your Dynamic DNS provider from the drop down menu.
Host Name:	Enter the host name of the DDNS server.
Username:	Enter your username or e-mail used to connect to the DDNS server.
Password:	Enter your password used to connect to the DDNS server.
Status:	Indicates the current connection status.


Product Page: DCS-6111
Firmware Version: 1.00
D-Link
DCS-6111
LIVE VIDEO
SETUP
ADVANCED
MAINTENANCE
STATUS
HELP
Wizard
Network Setup
Dynamic DNS
Image Setup
Audio and Video
Motion Detection
Time and Date
Event Setup
Logout
Save Settings
Don't Save Settings

DDNS

The Dynamic DNS feature allows you to host a server (Web, FTP, Game Server, etc...) using a domain name that you have purchased (http://www.whateveryournameis.com) with your dynamically assigned IP address. Most broadband Internet Service Providers assign dynamic (changing) IP addresses. Using a DDNS service provider, your friends can enter your host name to connect to your game server no matter what your IP address is.

Sign up for D-Link's Free DDNS service at www.DLinkDDNS.com.

DDNS SETTING

☑ Enable DDNS

Server name	www.dlinkddns.com(Free)
Host name	wdrdome.my-ip.net
User name	admin1
Password	•••••••
Confirm password	•••••••
Status	None

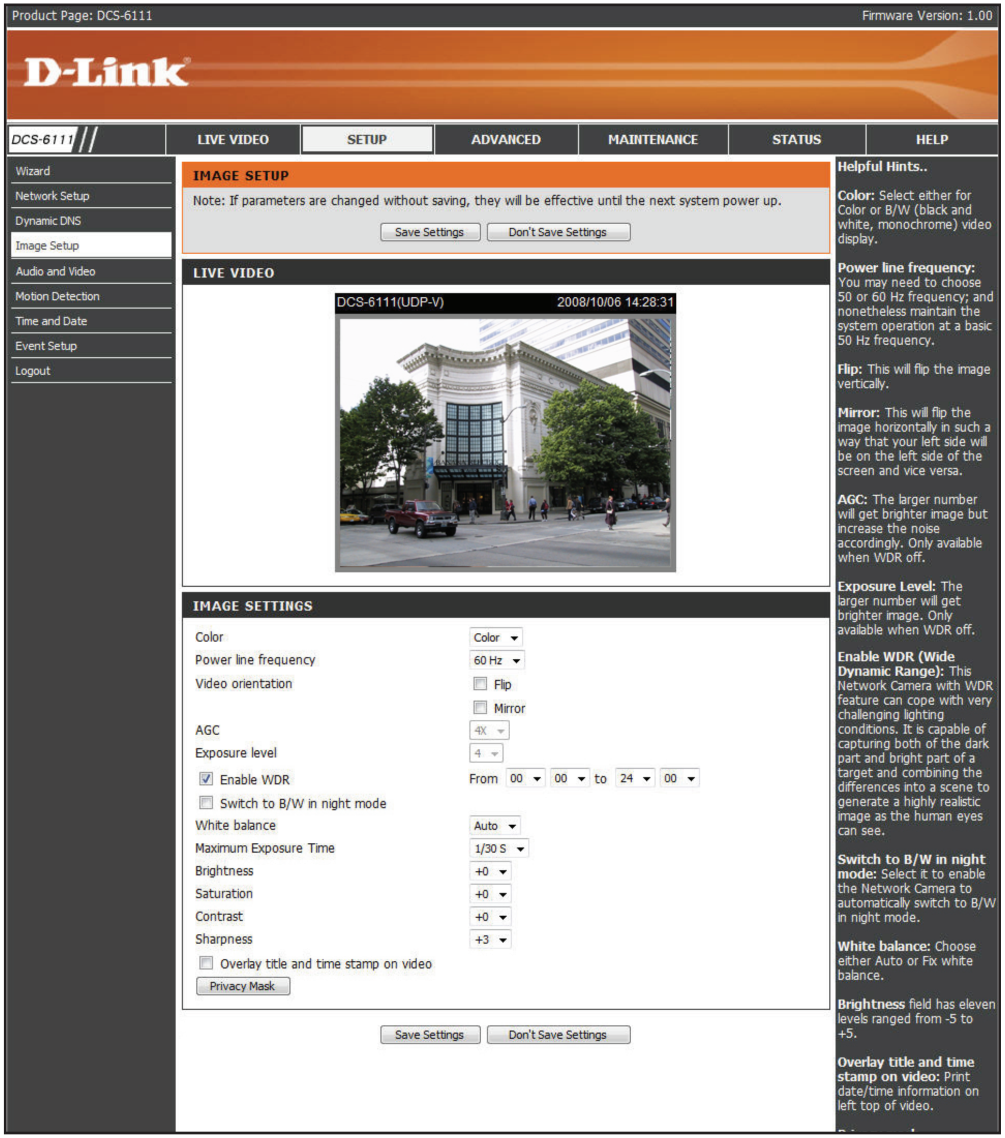
Helpful Hints..

Dynamic DNS is useful if you have a DSL or Cable service provider that changes your modem IP address periodically. This will allow you to assign a website domain name to your camera instead of connecting through an IP address.

Image Setup

You may configure the image settings of the video for your network camera. A preview of the image will be shown in the window of Live Video. Click **Save Settings** to save and activate your changes.

Color:	Select either a **Color** or **B/W (black and white, monochrome)** video display.
Power Line Frequency:	Select either 50 or 60Hz.
Video Orientation:	**Flip** will vertically rotate the video. **Mirror** will horizontally rotate the video. You may check both options if the camera is being installed upside down.
AGC:	Select to set the Automatic Gain Control value. Automatic Gain Control increases the sensitivity of the camera and is used to automatically adjust the gain level of the video signal to a predetermined value. The following options are available - 2X, 4X, or 8 X (field time multiples). The default value is 4X. The higher the value, the brighter the image will be, but this also increases the noise ratio accordingly. This option is only available when WDR is unchecked.
Exposure Level:	Select to set the exposure level from the drop-down box. The range included is from 1 to 8 and the default value is 4. A higher value produces a brighter image. This option is only available when WDR is unchecked.


Product Page: DCS-6111
Firmware Version: 1.00
D-Link
DCS-6111
LIVE VIDEO
SETUP
ADVANCED
MAINTENANCE
STATUS
HELP
Wizard
Network Setup
Dynamic DNS
Image Setup
Audio and Video
Motion Detection
Time and Date
Event Setup
Logout
IMAGE SETUP
Save Settings
Don't Save Settings
LIVE VIDEO
DCS-6111(UDP-V)
2008/10/06 14:28:31
IMAGE SETTINGS
Privacy Mask
Save Settings
Don't Save Settings

Note: If parameters are changed without saving, they will be effective until the next system power up.

Color	Color
Power line frequency	60 Hz
Video orientation	☐ Flip
	☐ Mirror
AGC	4X
Exposure level	4
☑ Enable WDR	From 00 00 to 24 00
☐ Switch to B/W in night mode	
White balance	Auto
Maximum Exposure Time	1/30 S
Brightness	+0
Saturation	+0
Contrast	+0
Sharpness	+3
☐ Overlay title and time stamp on video	

Helpful Hints..

Color: Select either for Color or B/W (black and white, monochrome) video display.

Power line frequency: You may need to choose 50 or 60 Hz frequency; and nonetheless maintain the system operation at a basic 50 Hz frequency.

Flip: This will flip the image vertically.

Mirror: This will flip the image horizontally in such a way that your left side will be on the left side of the screen and vice versa.

AGC: The larger number will get brighter image but increase the noise accordingly. Only available when WDR off.

Exposure Level: The larger number will get brighter image. Only available when WDR off.

Enable WDR (Wide Dynamic Range): This Network Camera with WDR feature can cope with very challenging lighting conditions. It is capable of capturing both of the dark part and bright part of a target and combining the differences into a scene to generate a highly realistic image as the human eyes can see.

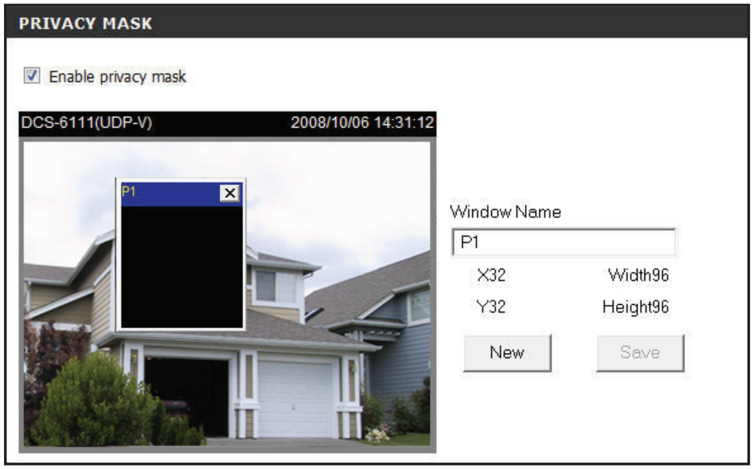
Switch to B/W in night mode: Select it to enable the Network Camera to automatically switch to B/W in night mode.

White balance: Choose either Auto or Fix white balance.

Brightness field has eleven levels ranged from -5 to +5.

Overlay title and time stamp on video: Print date/time information on left top of video.

Enable WDR (Wide Dynamic Range):	Select to enable the WDR function. WDR provides better performance especially when the image contains both very dark and bright areas. Also helps the camera to cope with varying lighting conditions. ***Note:*** When you select this function, Exposure level and AGC functions will be disabled.
Switch to B/W (Night Mode):	Select to automatically enable the camera to switch to B/W night mode.
White Balance:	Select either **Auto** or **Fix** from the drop-down box. Select **Auto** to automatically adjust the white balance of the object. Otherwise, select **Fix** to manually set the white balance conditions in advance.
Maximum Exposure Time:	Select to set the exposure time of the camera. 1/30s, 1/15s, or 1/5s are the available options in the drop-down box. The default value is 1/30s.
Brightness:	Select to change the brightness value for the Network Camera. The range varies from -5 to +5.
Saturation:	Select to change the saturation value of the camera. The default value is 0.
Contrast:	Select to change the contrast value of the camera. The default value is 0.
Overlay Title and Time Stamp on Video:	Select to add a date and time stamp on the video.
Privacy Mask:	Select Privacy Mask to open the Privacy Mask page. In this page, you can block out certain sensitive zones for privacy concerns. To set up a Privacy Mask Window, follow the steps given below: 1. Click **New** to add a window. 2. The height and width of the window should be at least twice the size of the object in order to resize and drag-drop the window. 3. Enter a descriptive **Window Name** and click **Save** to apply changes. 4. Select **Enable privacy mask** to facilitate this function.



☑ Enable privacy mask

Window Name: P1

X32 Width96

Y32 Height96

NOTE:

1. Up to five privacy mask windows can be set in the same screen.

2. Privacy masks will appear on all video stream and recording video.

3. Privacy masks will overlap with motion detection windows. The masked area will not detect any motion.

Audio and Video

Settings for two video streams (stream 1 and stream 2) can be configured here. You may configure one setting for computer display and the other one for mobile display.

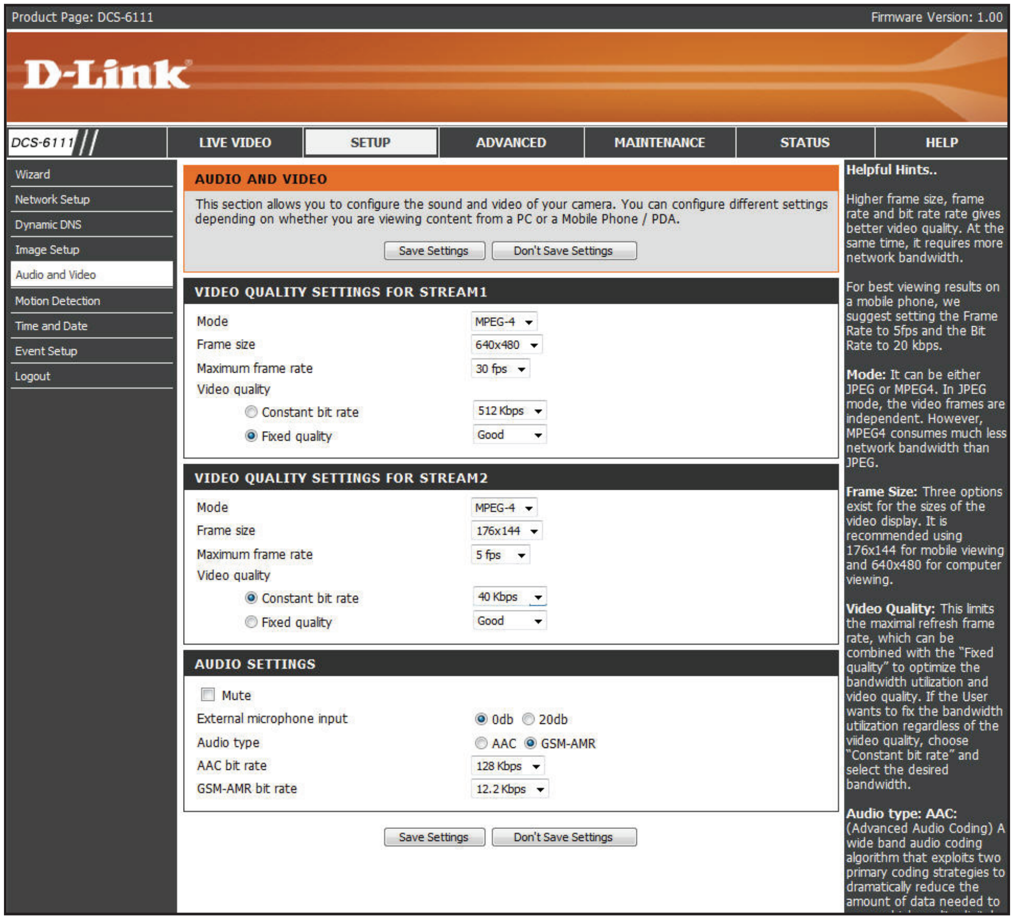
Mode: Select either **JPEG** or **MPEG4**. In JPEG mode, the video frames are independent. However, MPEG4 consumes much less network bandwidth than JPEG.

Frame Size: Select **176 x 144, 352 x 240 or 640 x 480** pixels for the frame size. We recommend **176 x 144** for mobile viewing and **640 x 480** for a computer monitor.

Maximum frame rate: The minimum frame rate value is **1fps** and the maximum is **30fps**. We recommend **30fps** for computer monitors and **5fps** for mobile viewing.

Video quality: This setting limits the maximum refresh frame rate. To set a fixed bandwidth regardless of the video quality, select **Constant bit rate** and the desired bandwidth. Select **Fixed Quality** to optimize the bandwidth utilization and video quality.

Mute: Select to mute audio.



Product Page: DCS-6111
Firmware Version: 1.00
D-Link
DCS-6111
LIVE VIDEO
SETUP
ADVANCED
MAINTENANCE
STATUS
HELP
Wizard
Network Setup
Dynamic DNS
Image Setup
Audio and Video
Motion Detection
Time and Date
Event Setup
Logout

AUDIO AND VIDEO

This section allows you to configure the sound and video of your camera. You can configure different settings depending on whether you are viewing content from a PC or a Mobile Phone / PDA.

Save Settings
Don't Save Settings

VIDEO QUALITY SETTINGS FOR STREAM1

Mode: MPEG-4
Frame size: 640x480
Maximum frame rate: 30 fps
Video quality
○ Constant bit rate: 512 Kbps
● Fixed quality: Good

VIDEO QUALITY SETTINGS FOR STREAM2

Mode: MPEG-4
Frame size: 176x144
Maximum frame rate: 5 fps
Video quality
● Constant bit rate: 40 Kbps
○ Fixed quality: Good

AUDIO SETTINGS

☐ Mute
External microphone input: ● 0db ○ 20db
Audio type: ○ AAC ● GSM-AMR
AAC bit rate: 128 Kbps
GSM-AMR bit rate: 12.2 Kbps

Save Settings
Don't Save Settings

Helpful Hints..

Higher frame size, frame rate and bit rate rate gives better video quality. At the same time, it requires more network bandwidth.

For best viewing results on a mobile phone, we suggest setting the Frame Rate to 5fps and the Bit Rate to 20 kbps.

Mode: It can be either JPEG or MPEG4. In JPEG mode, the video frames are independent. However, MPEG4 consumes much less network bandwidth than JPEG.

Frame Size: Three options exist for the sizes of the video display. It is recommended using 176x144 for mobile viewing and 640x480 for computer viewing.

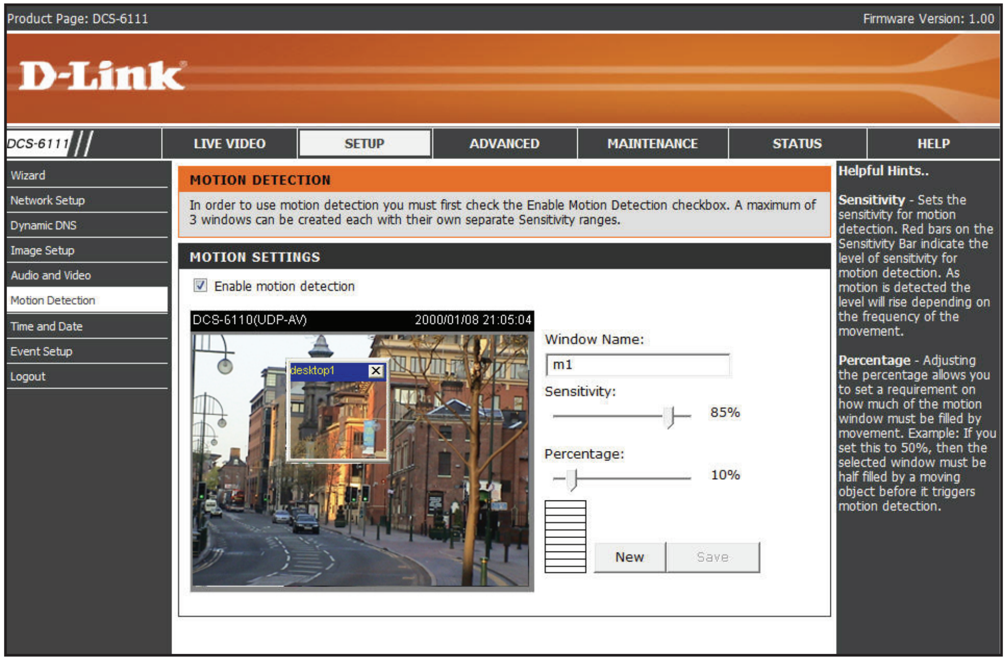
Video Quality: This limits the maximal refresh frame rate, which can be combined with the "Fixed quality" to optimize the bandwidth utilization and video quality. If the User wants to fix the bandwidth utilization regardless of the viideo quality, choose "Constant bit rate" and select the desired bandwidth.

Audio type: AAC: (Advanced Audio Coding) A wide band audio coding algorithm that exploits two primary coding strategies to dramatically reduce the amount of data needed to

External microphone input:	Set the microphone input gain at either 0dB or 20dB. ***Note:*** *The higher the decibel number, the louder the sound.*
Audio type:	**Advanced Audio Coding (AAC)** is a wide band audio coding algorithm that exploits two primary coding strategies to dramatically reduce the amount of data needed to convey high-quality digital audio. Select a higher bit rate number for better audio quality.
AAC bit rate:	Select an AAC bit rate from the drop-down list. Higher bit rate means higher audio quality but it takes more network bandwidth to transmit.
GSM-AMR:	A standard adapted audio codec by the 3GPP video (3rd Generation Partnership Project). It is an Adaptive Multi Rate-Narrow Band (AMRNB) speech codec. Select a higher bit rate number for better audio quality.
GSM-AMR bit rate:	Select the GSM-AMR bit rate from the drop-down list. Higher bit rate means higher audio quality but it takes more network bandwidth to transmit.

Motion Detection

Once Motion Detection feature is enabled, users will be able to monitor three windows with different settings. This allows your camera to serve as a security device that records only when motion is detected.


Product Page: DCS-6111
Firmware Version: 1.00
D-Link
DCS-6111
LIVE VIDEO
SETUP
ADVANCED
MAINTENANCE
STATUS
HELP
Wizard
Network Setup
Dynamic DNS
Image Setup
Audio and Video
Motion Detection
Time and Date
Event Setup
Logout
DCS-6110(UDP-AV)
2000/01/08 21:05:04
desktop1
New
Save

MOTION DETECTION

In order to use motion detection you must first check the Enable Motion Detection checkbox. A maximum of 3 windows can be created each with their own separate Sensitivity ranges.

MOTION SETTINGS

☑ Enable motion detection

Window Name: m1

Sensitivity: 85%

Percentage: 10%

Helpful Hints..

Sensitivity - Sets the sensitivity for motion detection. Red bars on the Sensitivity Bar indicate the level of sensitivity for motion detection. As motion is detected the level will rise depending on the frequency of the movement.

Percentage - Adjusting the percentage allows you to set a requirement on how much of the motion window must be filled by movement. Example: If you set this to 50%, then the selected window must be half filled by a moving object before it triggers motion detection.

Enable motion detection: Check this option to turn on the motion detection feature.

Window name: Create your own name for the monitored area/window. It will show at the top of the motion window.

Sensitivity: Set the measurable difference between two sequential images that would indicate motion.

Percentage: Set the amount of motion in the window being monitored that is required to initiate a motion detected alert. If this is set to 100%, this means that motion must be detected within the whole window to trigger a snapshot.

Note: *Setting a higher sensitivity and a lower percentage will make motion easier to be detected.*

New: Click to add a new window. A maximum of three motion windows can be opened simultaneously. Use your mouse to drag the window frame to re-size or the title bar to move. Clicking on the 'x' at the upper right corner of the window will close the window.

Save: Save the related settings of that window.

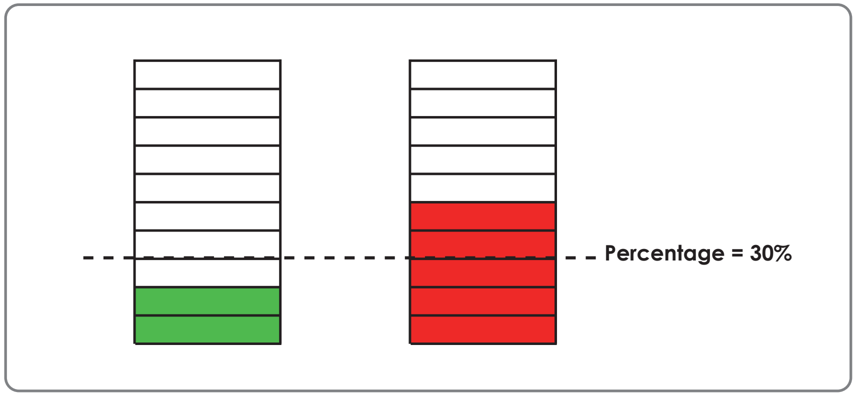
To enable motion detection, follow the steps below:

1. Click **New** to add a new motion detection window.
2. Enter a name in the **Window Name** field.
3. Define the sensitivity to moving objects and the space ratio of all alerted pixels by moving the **Sensitivity** and **Percentage** slide bar.
4. Click **Save** to apply the changes.
5. Select **Enable motion detection** to activate motion detection.

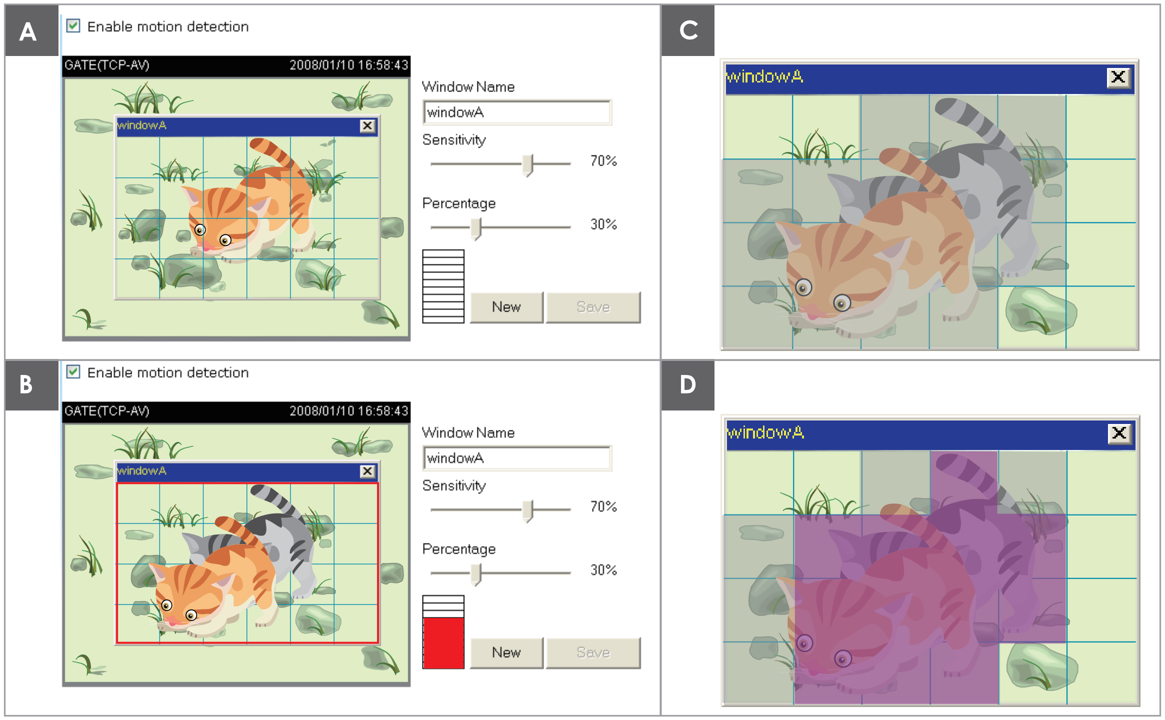
Note: *Drag to resize the window and click X to close the window.*

The Percentage Indicator will rise or fall depending on the image variation. When motions are detected by the Network Camera and are judged to exceed the defined threshold, a red bar rises. Meanwhile, the motion detection window will be outlined in red. Utilizing this device as a trigger source, photos or videos can be captured instantly and sent to the remote server (Email, FTP).

A green bar indicates that even though motions are detected, the event will not be triggered because the image variations are still falling under the defined threshold.



How does motion detection work?



☑ Enable motion detection

Window Name: windowA

Sensitivity: 70%

Percentage: 30%

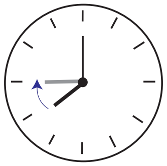
There are two parameters for setting the motion detection: **Sensitivity** and **Percentage**. In the illustration above, frame A and frame B are two sequential images. Pixel differences between the two frames are detected and highlighted in gray (frame C), and will be compared with the sensitivity setting. Sensitivity is a value that expresses the sensitivity to moving objects. Higher sensitivity settings are expected to sense a slight movement while smaller sensitivity settings tend to neglect it. When the sensitivity is set to 70%, the Network Camera defines the pixels in the purple areas as “alerted pixels” (frame D). Percentage is a value that expresses the proportion of “alerted pixels” to all pixels in the motion detection window. In this case, 50% of pixels are identified as “alerted pixels”. When the percentage is set to 30%, the motions are judged to exceed the defined threshold; therefore, the motion window will be outlined in red.

For applications that require higher security management, it is suggested to set higher sensitivity settings and smaller percentage values.

Time and Date

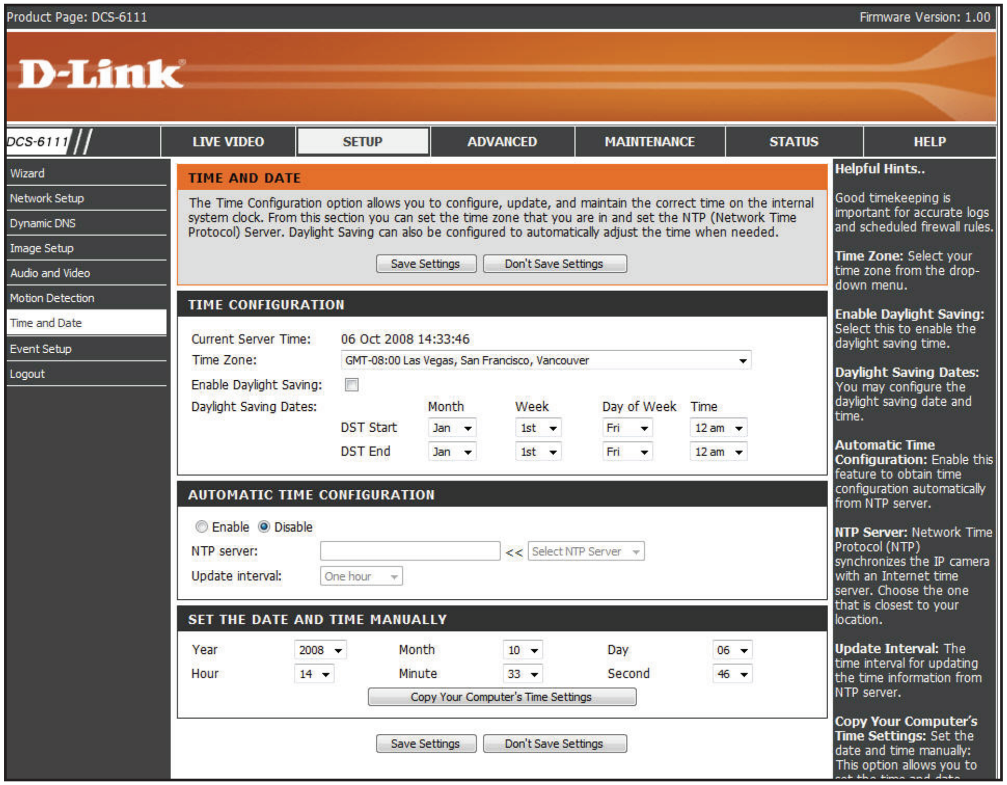
Automatically or manually configure, update, and maintain the internal system clock for your camera.

Current Server Time:	Displays current time.
Time Zone:	Select your time zone from the drop-down menu.
Enable Daylight Saving:	Select this to enable the daylight saving time (DST). During DST, the system clock moves one hour ahead.



Note: *To utilize this feature, ensure to set the time zone of your network camera. Then starting and ending time of the DST is displayed upon selecting the option.*

Daylight Saving Dates:	You may configure the daylight saving date and time.
Automatic Time Configuration:	Enable this feature to obtain time configuration automatically from NTP server.
NTP Server:	Network Time Protocol (NTP) synchronizes the DCS-6111 with an Internet time server. Choose the one that is closest to your location.


Product Page: DCS-6111
Firmware Version: 1.00
D-Link
DCS-6111
LIVE VIDEO
SETUP
ADVANCED
MAINTENANCE
STATUS
HELP
Wizard
Network Setup
Dynamic DNS
Image Setup
Audio and Video
Motion Detection
Time and Date
Event Setup
Logout
Save Settings
Don't Save Settings
Copy Your Computer's Time Settings
Save Settings
Don't Save Settings

TIME AND DATE

The Time Configuration option allows you to configure, update, and maintain the correct time on the internal system clock. From this section you can set the time zone that you are in and set the NTP (Network Time Protocol) Server. Daylight Saving can also be configured to automatically adjust the time when needed.

TIME CONFIGURATION

Current Server Time: 06 Oct 2008 14:33:46
Time Zone: GMT-08:00 Las Vegas, San Francisco, Vancouver
Enable Daylight Saving: ☐
Daylight Saving Dates:

	Month	Week	Day of Week	Time
DST Start	Jan	1st	Fri	12 am
DST End	Jan	1st	Fri	12 am

AUTOMATIC TIME CONFIGURATION

○ Enable ● Disable
NTP server: << Select NTP Server
Update interval: One hour

SET THE DATE AND TIME MANUALLY

Year	2008	Month	10	Day	06
Hour	14	Minute	33	Second	46

Helpful Hints..

Good timekeeping is important for accurate logs and scheduled firewall rules.

Time Zone: Select your time zone from the drop-down menu.

Enable Daylight Saving: Select this to enable the daylight saving time.

Daylight Saving Dates: You may configure the daylight saving date and time.

Automatic Time Configuration: Enable this feature to obtain time configuration automatically from NTP server.

NTP Server: Network Time Protocol (NTP) synchronizes the IP camera with an Internet time server. Choose the one that is closest to your location.

Update Interval: The time interval for updating the time information from NTP server.

Copy Your Computer's Time Settings: Set the date and time manually: This option allows you to

Update Interval:	The time interval for updating the time information from NTP server.
Set the date and time manually:	This option allows you to set the time and date manually.
Copy Your Computer's Time Settings:	This will synchronize the time information from your PC.

Event Setup

There are four sections in Event Setup page.

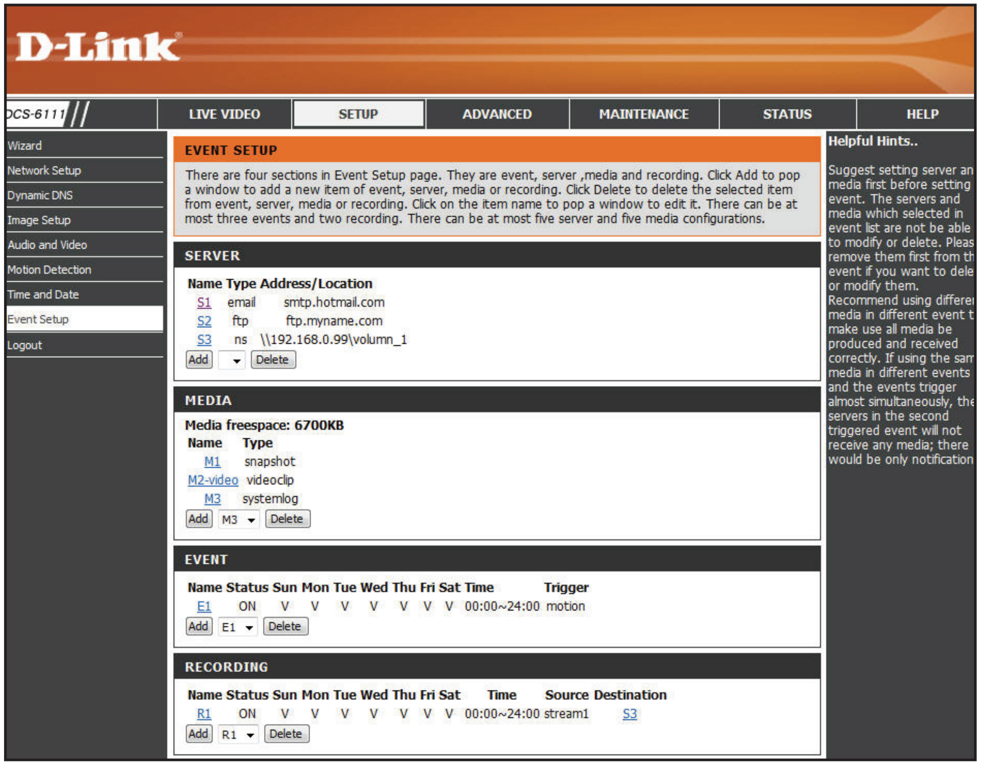
- Event
- Server
- Media
- Recording

1. To add a new item - event, server or media, click **Add**. A pop-up will appear and update the fields accordingly.

2. To delete the selected item from the pull-down menu of event, server or media, click **Delete**.

3. Click on the item name for further modification.

Note: *You can add up to four events, five servers and five media fields.*



EVENT SETUP

There are four sections in Event Setup page. They are event, server ,media and recording. Click Add to pop a window to add a new item of event, server, media or recording. Click Delete to delete the selected item from event, server, media or recording. Click on the item name to pop a window to edit it. There can be at most three events and two recording. There can be at most five server and five media configurations.

SERVER

Name	Type	Address/Location
S1	email	smtp.hotmail.com
S2	ftp	ftp.myname.com
S3	ns	\\192.168.0.99\volumn_1

MEDIA

Media freespace: 6700KB

Name	Type
M1	snapshot
M2-video	videoclip
M3	systemlog

EVENT

Name	Status	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Time	Trigger
E1	ON	V	V	V	V	V	V	V	00:00~24:00	motion

RECORDING

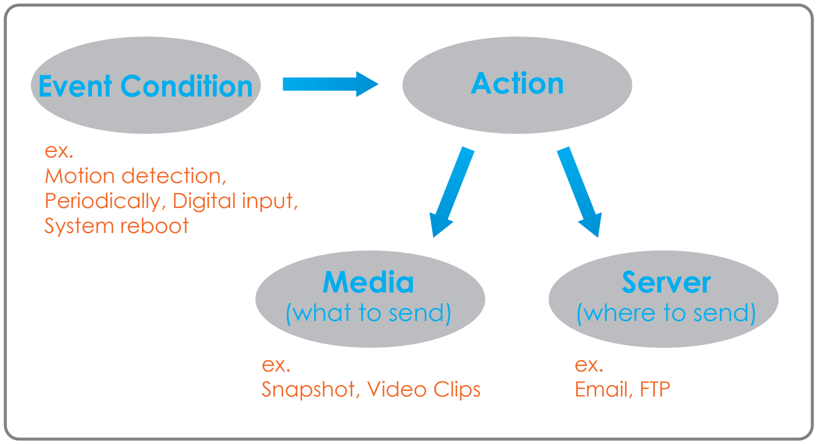
Name	Status	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Time	Source	Destination
R1	ON	V	V	V	V	V	V	V	00:00~24:00	stream1	S3

Helpful Hints..

Suggest setting server an media first before setting event. The servers and media which selected in event list are not be able to modify or delete. Pleas remove them first from th event if you want to dele or modify them.
Recommend using differe media in different event t make use all media be produced and received correctly. If using the sam media in different events and the events trigger almost simultaneously, the servers in the second triggered event will not receive any media; there would be only notification

Application

A typical application is that when motion is detected, the DCS-6111 Network Camera sends images to a FTP server or via e-mail as notifications. For example, as seen in the illustration below, an event can be triggered by many sources, such as motion detection or external digital input devices. When an event is triggered, you can specify what kind of action will be performed. You can configure the Network Camera to send snapshots or videos to your email address or FTP site.

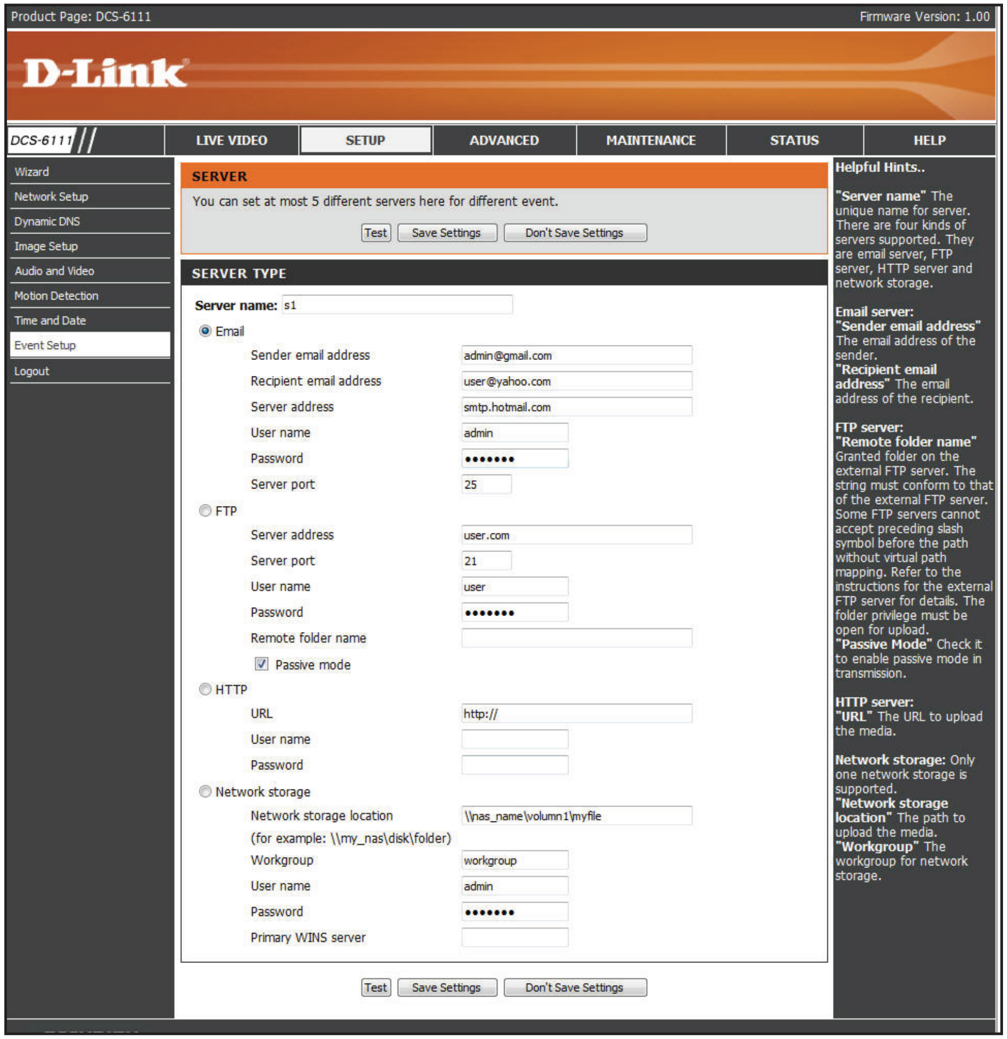

Event Condition
ex.
Motion detection,
Periodically, Digital input,
System reboot
Action
Media
(what to send)
ex.
Snapshot, Video Clips
Server
(where to send)
ex.
Email, FTP

To start plotting an event, it is suggested to configure server and media columns first so that the Network Camera will know what action shall be performed when a trigger is activated.

Add Server

You may configure up to 5 servers for media storage.

Server Name:	Unique name of your server.
Email:	Select this to enable and apply your email account setting for your camera.
FTP:	Select this to access a granted folder on the external FTP server.
HTTP:	Select this to use a web server to store the media.
Network Storage:	Only one network storage device is supported.


Product Page: DCS-6111
Firmware Version: 1.00
D-Link
DCS-6111
LIVE VIDEO
SETUP
ADVANCED
MAINTENANCE
STATUS
HELP
Wizard
Network Setup
Dynamic DNS
Image Setup
Audio and Video
Motion Detection
Time and Date
Event Setup
Logout
SERVER
Test
Save Settings
Don't Save Settings
SERVER TYPE

You can set at most 5 different servers here for different event.

Server name: s1

● Email

Sender email address	admin@gmail.com
Recipient email address	user@yahoo.com
Server address	smtp.hotmail.com
User name	admin
Password	•••••••
Server port	25

○ FTP

Server address	user.com
Server port	21
User name	user
Password	•••••••
Remote folder name	

☑ Passive mode

○ HTTP

URL	http://
User name	
Password	

○ Network storage

Network storage location	\\nas_name\volumn1\myfile
(for example: \\my_nas\disk\folder)	
Workgroup	workgroup
User name	admin
Password	•••••••
Primary WINS server	

Helpful Hints..

"Server name" The unique name for server. There are four kinds of servers supported. They are email server, FTP server, HTTP server and network storage.

Email server:
"Sender email address" The email address of the sender.
"Recipient email address" The email address of the recipient.

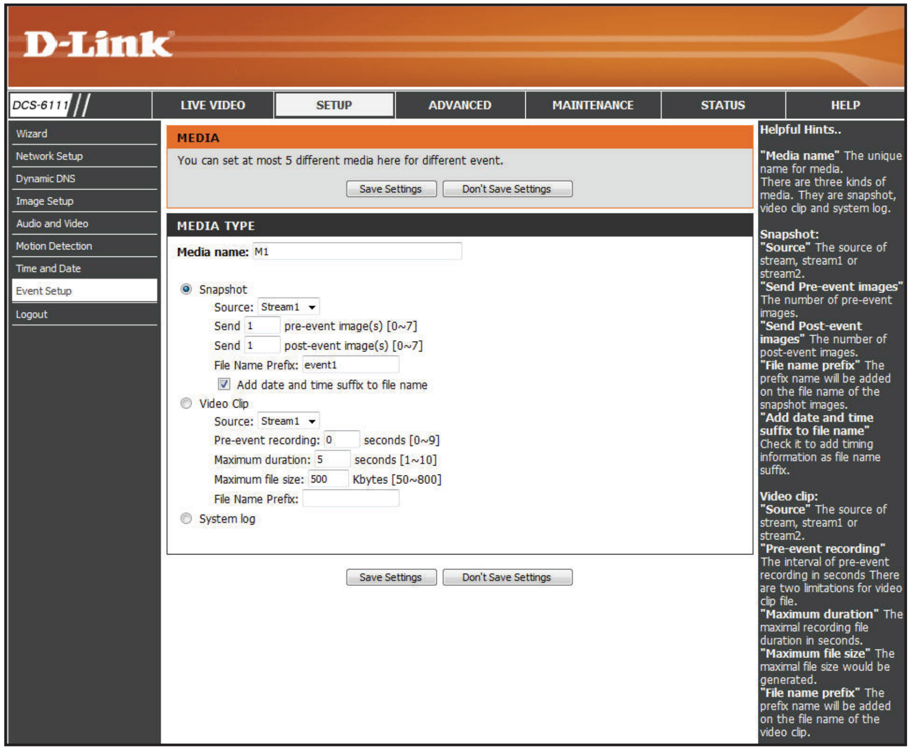
FTP server:
"Remote folder name" Granted folder on the external FTP server. The string must conform to that of the external FTP server. Some FTP servers cannot accept preceding slash symbol before the path without virtual path mapping. Refer to the instructions for the external FTP server for details. The folder privilege must be open for upload.
"Passive Mode" Check it to enable passive mode in transmission.

HTTP server:
"URL" The URL to upload the media.

Network storage: Only one network storage is supported.
"Network storage location" The path to upload the media.
"Workgroup" The workgroup for network storage.

Add Media

There are three types of media-Snapshot, Video Clip and System Log.



MEDIA

You can set at most 5 different media here for different event.

MEDIA TYPE

Media name: M1

● Snapshot
Source: Stream1
Send 1 pre-event image(s) [0~7]
Send 1 post-event image(s) [0~7]
File Name Prefix: event1
☑ Add date and time suffix to file name
○ Video Clip
Source: Stream1
Pre-event recording: 0 seconds [0~9]
Maximum duration: 5 seconds [1~10]
Maximum file size: 500 Kbytes [50~800]
File Name Prefix:
○ System log

Helpful Hints..

"Media name" The unique name for media.
There are three kinds of media. They are snapshot, video clip and system log.

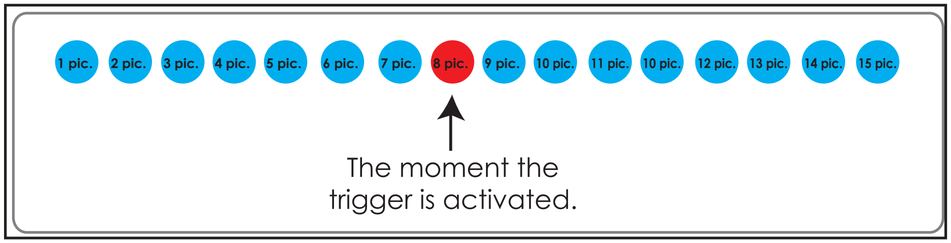
Snapshot:
"Source" The source of stream, stream1 or stream2.
"Send Pre-event images" The number of pre-event images.
"Send Post-event images" The number of post-event images.
"File name prefix" The prefix name will be added on the file name of the snapshot images.
"Add date and time suffix to file name" Check it to add timing information as file name suffix.

Video clip:
"Source" The source of stream, stream1 or stream2.
"Pre-event recording" The interval of pre-event recording in seconds There are two limitations for video clip file.
"Maximum duration" The maximal recording file duration in seconds.
"Maximum file size" The maximal file size would be generated.
"File name prefix" The prefix name will be added on the file name of the video clip.

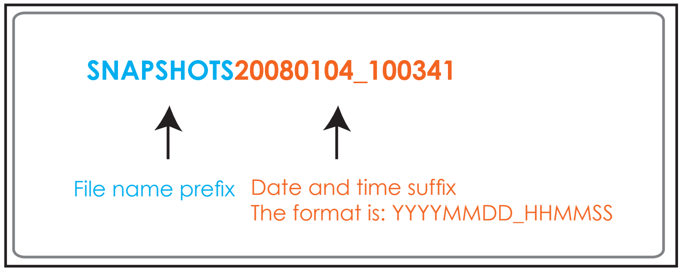
Media Name:	Enter an unique name for media.
Snapshot:	Select this feature to enable camera to take snapshot.
Source:	The source of stream: stream1 or stream2.
Send pre-event image(s) [0~7]:	The number of pre-event images.
Send post-event image(s) [0~7]:	The number of post-event images. Refer page 61 for more information.
File name prefix:	The prefix name will be added on the file name.
Add date and time suffix to file name:	Check it to add timing information as file name suffix. Refer page 61 for more information.
Video clip:	Select this feature to enable camera to take video clip.
Source:	The source of stream: stream1 or stream2.
Pre-event recording:	The interval of pre-event recording in seconds.
Maximum duration:	The maximal recording file duration in seconds. Refer page 62 for more information.
Maximum file size:	The maximal file size would be generated.
File name prefix:	The prefix name will be added on the file name of the video clip. Refer page 62 for more information.
System log:	Select this feature to enable camera to display system log.

Send post-event image (s) [0~7]
Specify to capture the number of images after a trigger is activated. A maximum of seven images can be generated.

For example:
If both the Send pre-event images and Send post-event images are set to seven, a total of 15 images are generated after a trigger is activated.

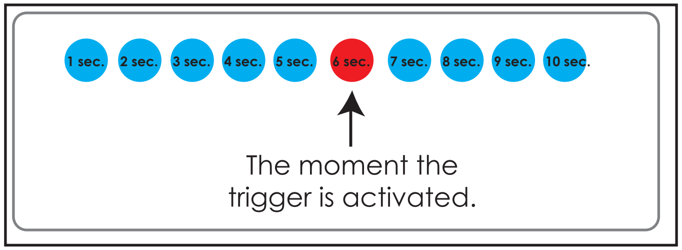

1 pic.
2 pic.
3 pic.
4 pic.
5 pic.
6 pic.
7 pic.
8 pic.
9 pic.
10 pic.
11 pic.
10 pic.
12 pic.
13 pic.
14 pic.
15 pic.
The moment the trigger is activated.

Add date and time suffix to file name
Select this option to add date and time to the file name suffix.

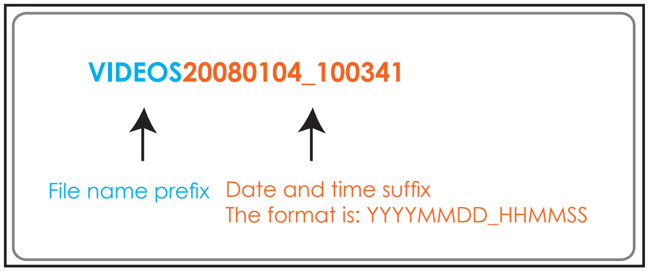

SNAPSHOTS20080104_100341
File name prefix
Date and time suffix
The format is: YYYYMMDD_HHMMSS

Maximum duration
Specify the maximal recording duration in seconds. You can set up to ten seconds.

For example:
If the Pre-event recording is set to five seconds and the Maximum duration is set to ten seconds, the Network Camera continues to record for another four seconds after a trigger is activated.


1 sec.
2 sec.
3 sec.
4 sec.
5 sec.
6 sec.
7 sec.
8 sec.
9 sec.
10 sec.
The moment the trigger is activated.

File name prefix
Enter the text that will be added at the beginning of the file name.


VIDEOS20080104_100341
File name prefix
Date and time suffix
The format is: YYYYMMDD_HHMMSS

Add Event

Create and schedule up to 3 events with their own settings here.

Event name: Enter a name for the event.

Enable this event: Select to activate this event.

Priority: Set the priority for this event. The event with higher priority will be executed first.

Delay: Select the delay time before checking next event. It is being used for both events of motion detection and digital input trigger.

Trigger: The input type that triggers the event.

Video motion detection: Motion is detected during live video monitoring. Select the windows that need to be monitored.

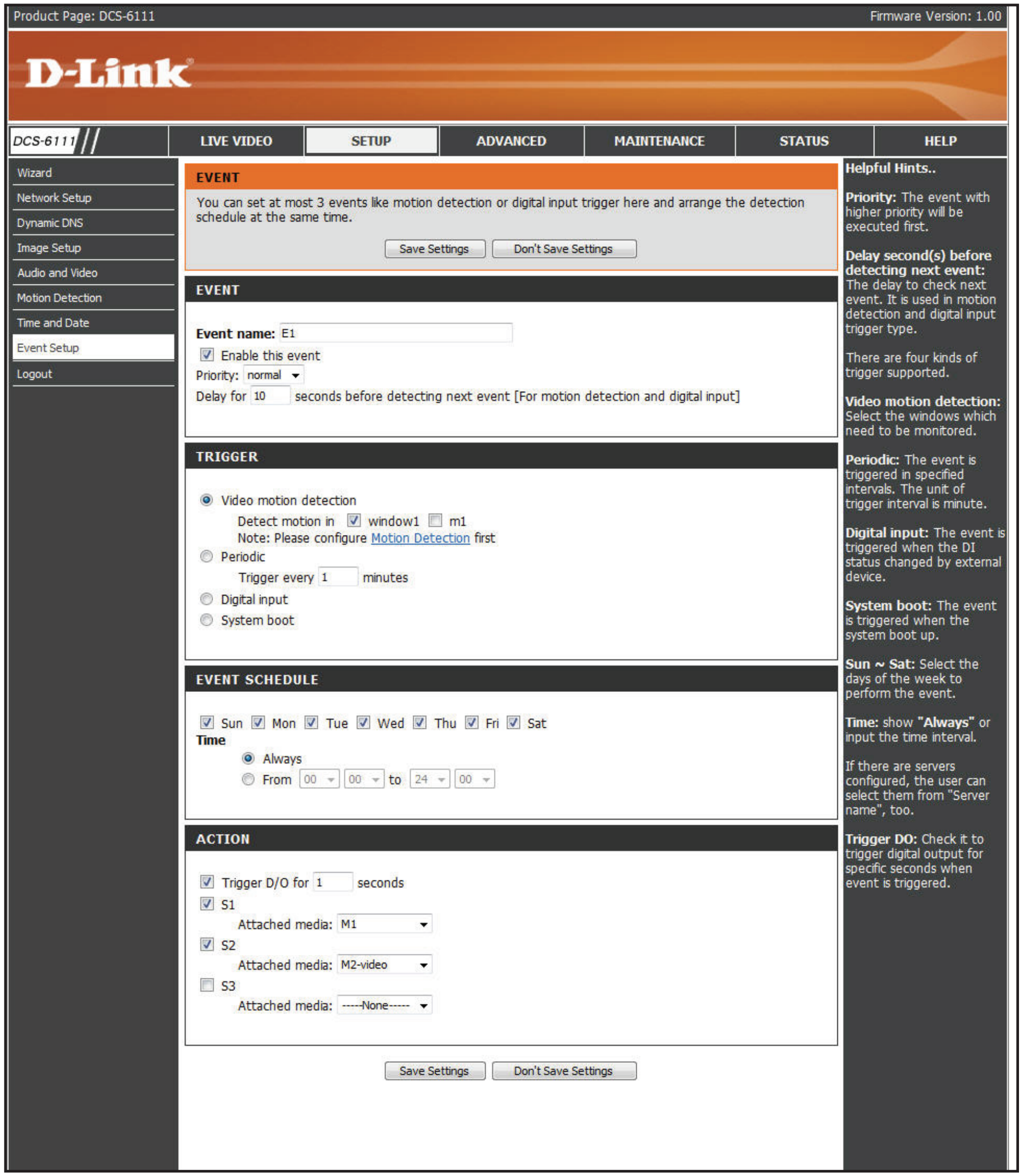
Periodic: The event is triggered in specified intervals. The unit of trigger interval is minute.

Digital input: External trigger input to the camera.

System boot: Triggers an event when the system boots up.

Time: Select Always or enter the time interval.

Trigger D/O: Select to trigger digital output for specific number of seconds when an event occurs.



EVENT

You can set at most 3 events like motion detection or digital input trigger here and arrange the detection schedule at the same time.

EVENT

Event name: E1

☑ Enable this event

Priority: normal

Delay for 10 seconds before detecting next event [For motion detection and digital input]

TRIGGER

● Video motion detection

Detect motion in ☑ window1 ☐ m1

Note: Please configure Motion Detection first

○ Periodic

Trigger every 1 minutes

○ Digital input

○ System boot

EVENT SCHEDULE

☑ Sun ☑ Mon ☑ Tue ☑ Wed ☑ Thu ☑ Fri ☑ Sat

Time

● Always

○ From 00 00 to 24 00

ACTION

☑ Trigger D/O for 1 seconds

☑ S1

Attached media: M1

☑ S2

Attached media: M2-video

☐ S3

Attached media: -----None-----

Helpful Hints..

Priority: The event with higher priority will be executed first.

Delay second(s) before detecting next event: The delay to check next event. It is used in motion detection and digital input trigger type.

There are four kinds of trigger supported.

Video motion detection: Select the windows which need to be monitored.

Periodic: The event is triggered in specified intervals. The unit of trigger interval is minute.

Digital input: The event is triggered when the DI status changed by external device.

System boot: The event is triggered when the system boot up.

Sun ~ Sat: Select the days of the week to perform the event.

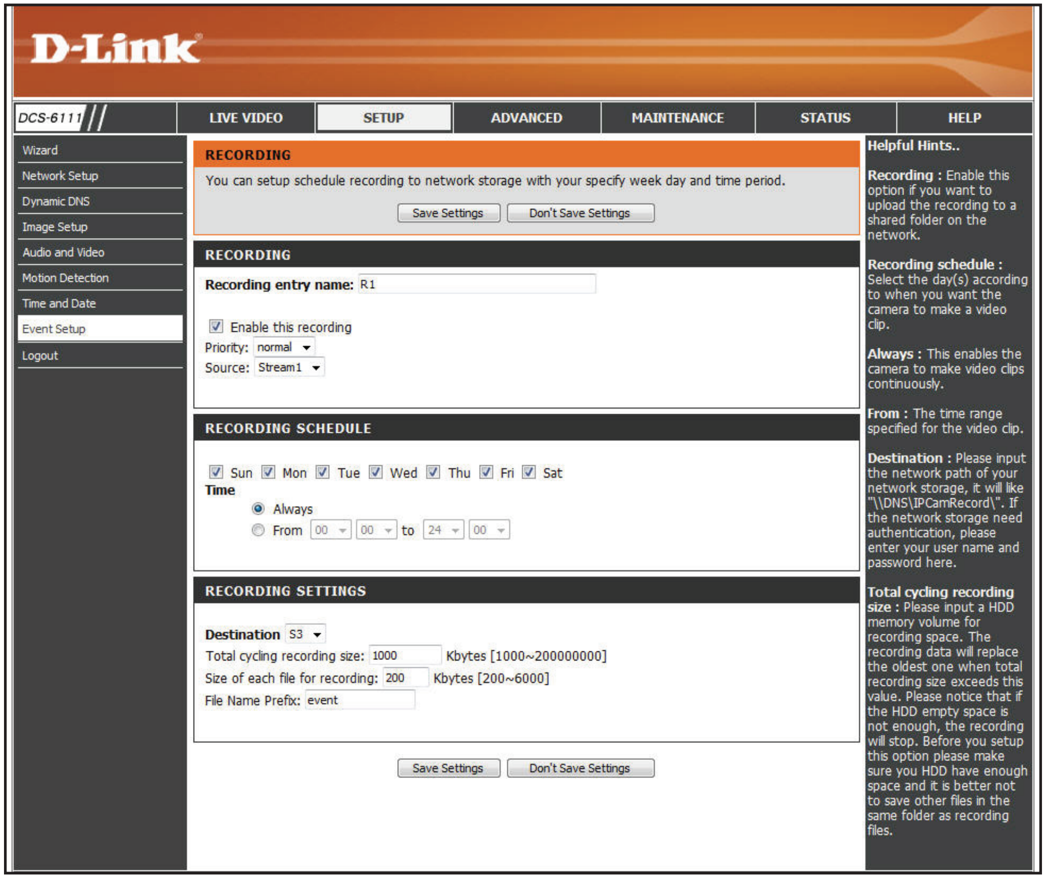
Time: show **"Always"** or input the time interval.

If there are servers configured, the user can select them from "Server name", too.

Trigger DO: Check it to trigger digital output for specific seconds when event is triggered.

Add Recording

Here you can configure and schedule the recording settings.



RECORDING

You can setup schedule recording to network storage with your specify week day and time period.

RECORDING

Recording entry name: R1

☑ Enable this recording
Priority: normal
Source: Stream1

RECORDING SCHEDULE

☑ Sun ☑ Mon ☑ Tue ☑ Wed ☑ Thu ☑ Fri ☑ Sat
Time
● Always
○ From 00 00 to 24 00

RECORDING SETTINGS

Destination S3
Total cycling recording size: 1000 Kbytes [1000~200000000]
Size of each file for recording: 200 Kbytes [200~6000]
File Name Prefix: event

Helpful Hints..

Recording : Enable this option if you want to upload the recording to a shared folder on the network.

Recording schedule : Select the day(s) according to when you want the camera to make a video clip.

Always : This enables the camera to make video clips continuously.

From : The time range specified for the video clip.

Destination : Please input the network path of your network storage, it will like "\\DNS\IPCamRecord\". If the network storage need authentication, please enter your user name and password here.

Total cycling recording size : Please input a HDD memory volume for recording space. The recording data will replace the oldest one when total recording size exceeds this value. Please notice that if the HDD empty space is not enough, the recording will stop. Before you setup this option please make sure you HDD have enough space and it is better not to save other files in the same folder as recording files.

Recording entry name:	The unique name of the entry.
Enable this recording:	Select this to enable the recording function.
Priority:	Set the priority for this entry. The entry with a higher priority value will be executed first.
Source:	The source of stream.
Recording schedule:	Scheduling the recording entry.
Recording settings:	Configuring the setting for the recording.
Destination:	Select the folder where will store the recording file.
Total cycling recording size	Please input a HDD volume between 1MB and 200GB for recording space. The recording data will replace the oldest one when total recording size exceeds this value. For example, if each recording file is 6MB, and the total cycling recording size is 600MB, then the camera will record 100 files to the specified location (folder) and then will delete the oldest file and create new file for cycling recording. Please note that if the HDD empty space is not enough, the recording will stop. Before you setup this option please make sure your HDD has enough space and it is better to not save other files in the same folder as recording files.
Size of each file for recording:	File size for each recording file. You may input the value in the range of 200-6000.
File Name Prefix:	The prefix name will be added on the file name of the recording file(s).

Advanced

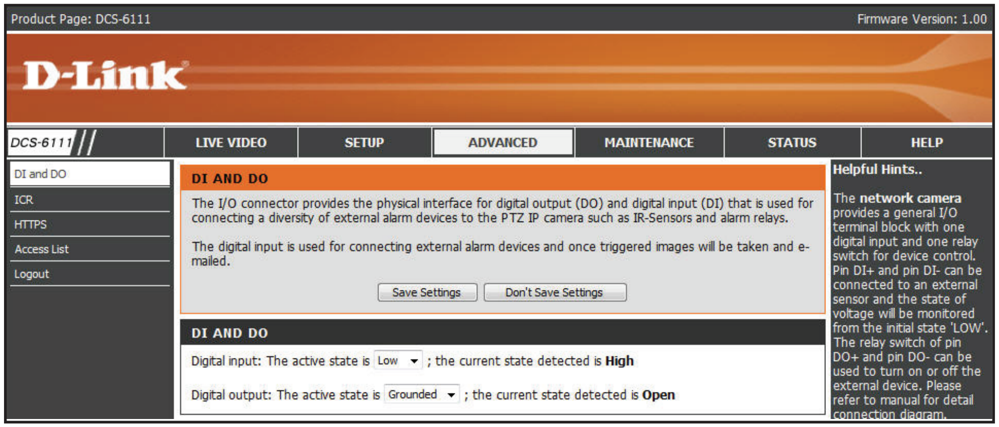
DI and DO

The I/O connector provides the physical interface for digital output (DO) and digital input (DI) that is used for connecting such external alarm devices as IR-Sensors and alarm relays to the network camera.

DI and DO: Settings for both Digital input signal and digital output signal can be configured here.

Digital input trigger condition: Please select High or Low for digital input trigger condition. When an external device is connected to the digital input pins, the state of the voltage will be monitored. (Max. Input 500mA, 12Vdc)

Digital output: Select Grounded or Open to define normal status of the digital output. The camera will show whether the trigger is activated or not.



DI AND DO

The I/O connector provides the physical interface for digital output (DO) and digital input (DI) that is used for connecting a diversity of external alarm devices to the PTZ IP camera such as IR-Sensors and alarm relays.

The digital input is used for connecting external alarm devices and once triggered images will be taken and e-mailed.

DI AND DO

Digital input: The active state is Low ; the current state detected is **High**

Digital output: The active state is Grounded ; the current state detected is **Open**

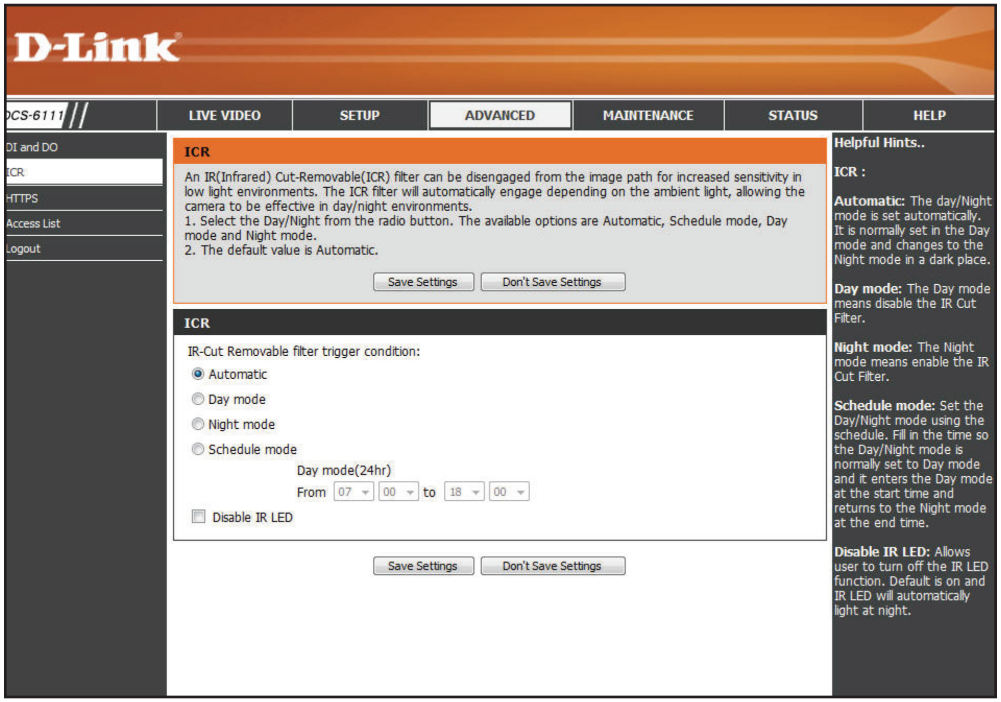
Helpful Hints..

The **network camera** provides a general I/O terminal block with one digital input and one relay switch for device control. Pin DI+ and pin DI- can be connected to an external sensor and the state of voltage will be monitored from the initial state 'LOW'. The relay switch of pin DO+ and pin DO- can be used to turn on or off the external device. Please refer to manual for detail connection diagram.

ICR

ICR - IR-Cut Removable(ICR) filter is a switch mechanical design of two different sensor filters. It provides the best light conditions both during the day and night. The following options are:

Auto:	The Network Camera automatically switches between day and night mode by judging the level of ambient light. This mode is accessible only when the exposure mode is set to **Auto**.
Day Mode:	In this mode the Network Camera switches on the infrared cut filter at all times, which will block the infrared light from reaching the sensor so that the colors are not distorted.
Night Mode:	The Network Camera switches off the infrared cut filter to allow the infrared light to pass through. This helps the Network Camera to see more clearly in low light conditions.
Schedule Mode:	The Network Camera switches between day and night mode based on a specific schedule. Ensure to enter the starting and ending time for the day mode. Note that the time format is [hh:mm] and is expressed in 24-hour clock time. By default, the starting time and ending time of day mode are set to 07:00 and 18:00.
Disable IR LED:	Select to disable the IR LED. The IR LED automatically switches on at night. By default the LED automatically switches on at night.



ICR

An IR(Infrared) Cut-Removable(ICR) filter can be disengaged from the image path for increased sensitivity in low light environments. The ICR filter will automatically engage depending on the ambient light, allowing the camera to be effective in day/night environments.

1. Select the Day/Night from the radio button. The available options are Automatic, Schedule mode, Day mode and Night mode.
2. The default value is Automatic.

ICR

IR-Cut Removable filter trigger condition:

● Automatic
○ Day mode
○ Night mode
○ Schedule mode

Day mode(24hr)
From 07 : 00 to 18 : 00

☐ Disable IR LED

Helpful Hints..

ICR :

Automatic: The day/Night mode is set automatically. It is normally set in the Day mode and changes to the Night mode in a dark place.

Day mode: The Day mode means disable the IR Cut Filter.

Night mode: The Night mode means enable the IR Cut Filter.

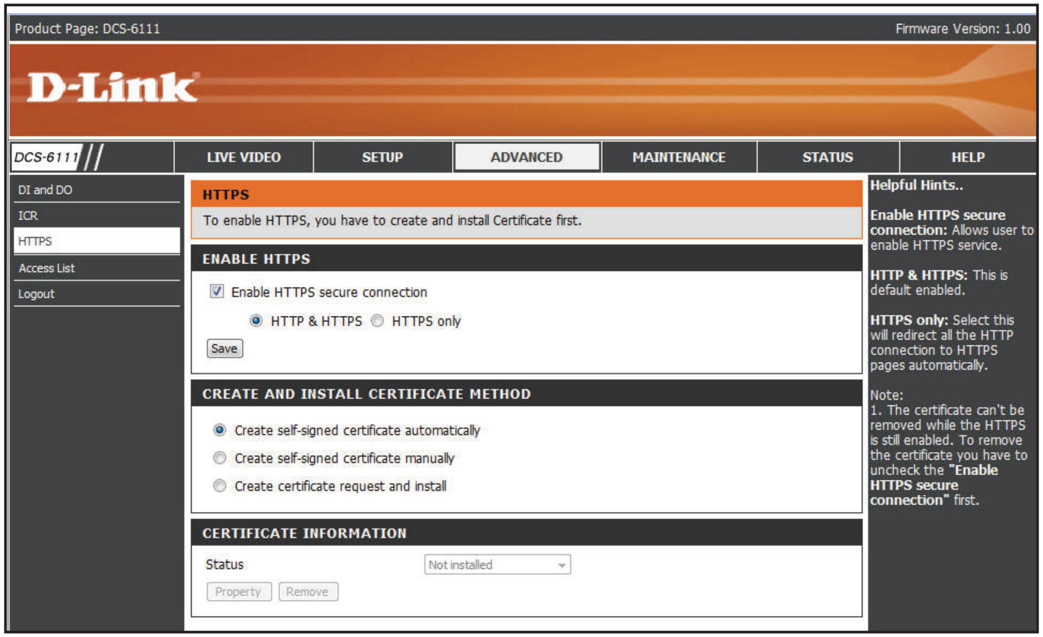
Schedule mode: Set the Day/Night mode using the schedule. Fill in the time so the Day/Night mode is normally set to Day mode and it enters the Day mode at the start time and returns to the Night mode at the end time.

Disable IR LED: Allows user to turn off the IR LED function. Default is on and IR LED will automatically light at night.

HTTPS

This section briefly describes about the HTTPS services provided by the network camera.

Enable HTTPS secure connection:	Select to enable a secure **HTTPS** connection.
HTTP & HTTPS:	Select to enable the **HTTP** and **HTTPS** services. By default, this option is enabled.
HTTPS only:	Select this to automatically redirect an **HTTP** connection to **HTTPS**.


Product Page: DCS-6111
Firmware Version: 1.00
D-Link
DCS-6111
LIVE VIDEO
SETUP
ADVANCED
MAINTENANCE
STATUS
HELP
DI and DO
ICR
HTTPS
Access List
Logout
HTTPS
ENABLE HTTPS
Save
CREATE AND INSTALL CERTIFICATE METHOD
CERTIFICATE INFORMATION
Property
Remove
Helpful Hints..

To enable HTTPS, you have to create and install Certificate first.

☑ Enable HTTPS secure connection

● HTTP & HTTPS ○ HTTPS only

● Create self-signed certificate automatically
○ Create self-signed certificate manually
○ Create certificate request and install

Status: Not installed

Enable HTTPS secure connection: Allows user to enable HTTPS service.

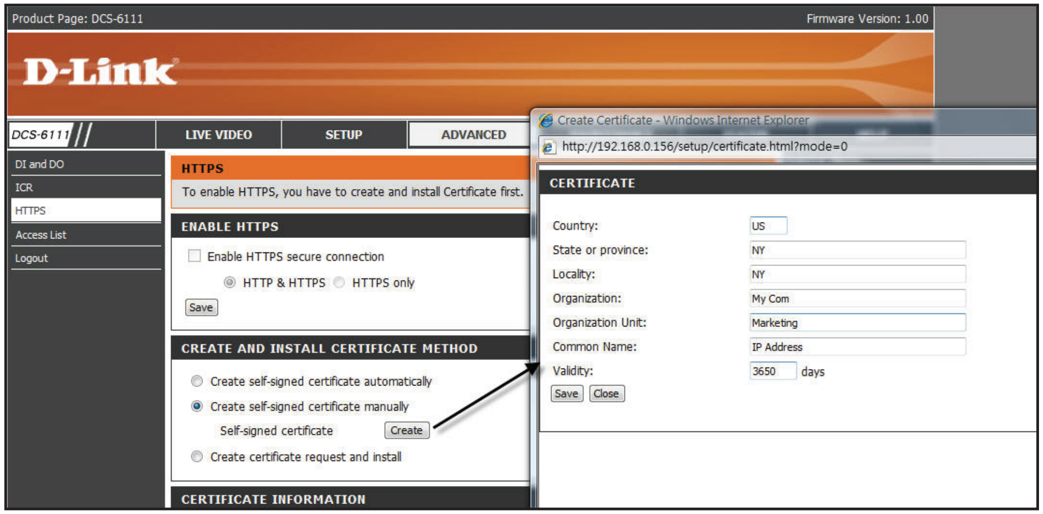
HTTP & HTTPS: This is default enabled.

HTTPS only: Select this will redirect all the HTTP connection to HTTPS pages automatically.

Note:
1. The certificate can't be removed while the HTTPS is still enabled. To remove the certificate you have to uncheck the "**Enable HTTPS secure connection**" first.

There are three methods to implement HTTPS. They are:

Method 1. Create self-signed certificate automatically:	Select to create a certificate signing request for your server. If there is no certificate available on the remote client device, it automatically generates one when **Enable HTTPS secure connection and Create self-signed certificate automatically** is selected.
Method 2. Create self-signed certificate manually:	Click **Create** to manually update the information as seen in the figure. And then click **Save** to generate and install a self-signed certificate on the remote client device.


Product Page: DCS-6111
Firmware Version: 1.00
D-Link
DCS-6111
LIVE VIDEO
SETUP
ADVANCED
DI and DO
ICR
HTTPS
Access List
Logout
HTTPS
ENABLE HTTPS
Save
CREATE AND INSTALL CERTIFICATE METHOD
Create
CERTIFICATE INFORMATION
Create Certificate - Windows Internet Explorer
CERTIFICATE
Save
Close

To enable HTTPS, you have to create and install Certificate first.

☐ Enable HTTPS secure connection

● HTTP & HTTPS ○ HTTPS only

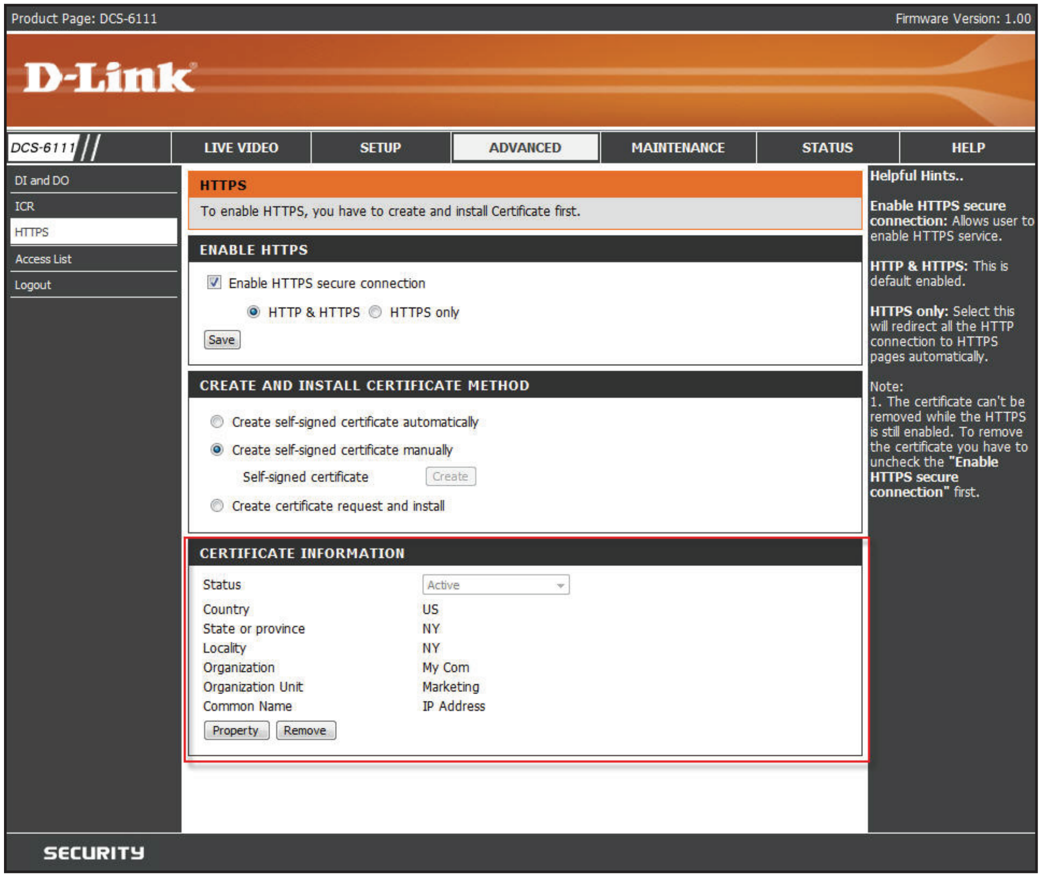
○ Create self-signed certificate automatically
● Create self-signed certificate manually
Self-signed certificate
○ Create certificate request and install

http://192.168.0.156/setup/certificate.html?mode=0

Country: US
State or province: NY
Locality: NY
Organization: My Com
Organization Unit: Marketing
Common Name: IP Address
Validity: 3650 days

Note: *Ensure to uncheck the Enable HTTPS secure connection to remove the certificate.*

Method 3. Create certificate request and install: To upload a signed-certificate, ensure to create a certificate request. After creating the request, click **Browse** to upload the certificate file which has been signed by the third party. Once uploaded, the **Certificate Information** section displays the information of the certificate and the status is changed to **Active**.


Product Page: DCS-6111
Firmware Version: 1.00
D-Link
DCS-6111
LIVE VIDEO
SETUP
ADVANCED
MAINTENANCE
STATUS
HELP
DI and DO
ICR
HTTPS
Access List
Logout
Save
Create
Property
Remove
SECURITY

HTTPS

To enable HTTPS, you have to create and install Certificate first.

ENABLE HTTPS

☑ Enable HTTPS secure connection

● HTTP & HTTPS ○ HTTPS only

CREATE AND INSTALL CERTIFICATE METHOD

○ Create self-signed certificate automatically

● Create self-signed certificate manually

Self-signed certificate

○ Create certificate request and install

CERTIFICATE INFORMATION

Status	Active
Country	US
State or province	NY
Locality	NY
Organization	My Com
Organization Unit	Marketing
Common Name	IP Address

Helpful Hints..

Enable HTTPS secure connection: Allows user to enable HTTPS service.

HTTP & HTTPS: This is default enabled.

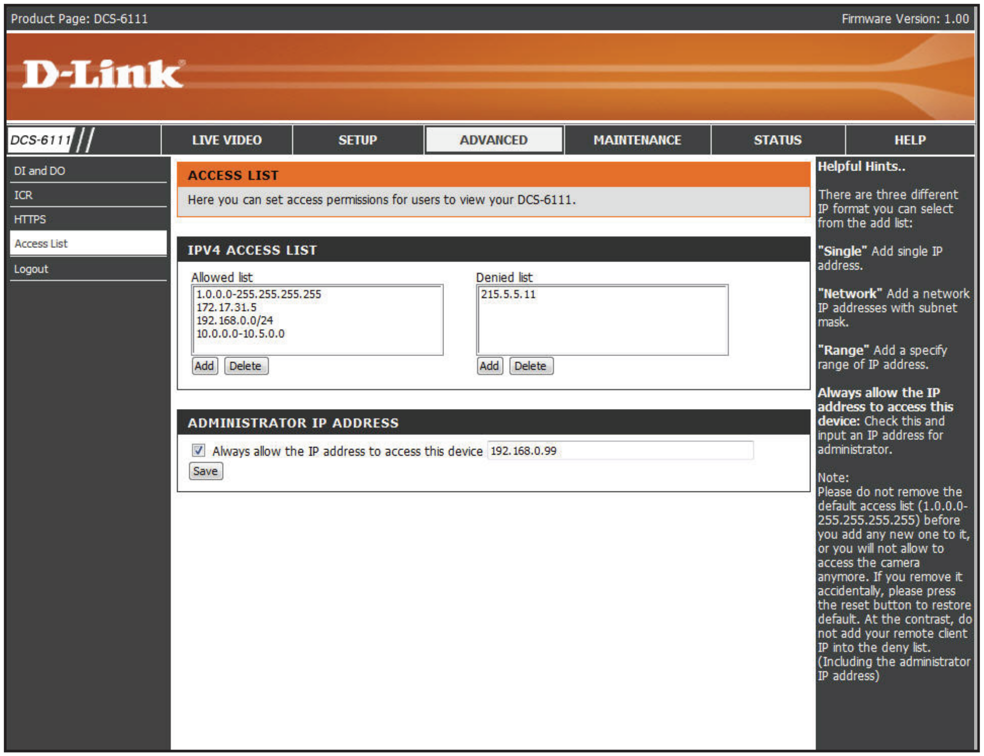
HTTPS only: Select this will redirect all the HTTP connection to HTTPS pages automatically.

Note:
1. The certificate can't be removed while the HTTPS is still enabled. To remove the certificate you have to uncheck the **"Enable HTTPS secure connection"** first.

Access List

The Access List page will allow you to configure access permissions for each user.

Allow list:	The list of IP addresses that have the access rights to the camera.
Delete allow list:	Remove the customized setting from the Allow List.
Deny list:	The list of IP addresses that have no access right to the camera.
Delete deny list:	Remove the customized setting from the Delete List.
Always allow the IP address to access this device:	Select to enter an IP address. The administrator always has access to this device.



ACCESS LIST

Here you can set access permissions for users to view your DCS-6111.

IPV4 ACCESS LIST

Allowed list
1.0.0.0-255.255.255.255
172.17.31.5
192.168.0.0/24
10.0.0.0-10.5.0.0

Denied list
215.5.5.11

ADMINISTRATOR IP ADDRESS

☑ Always allow the IP address to access this device 192.168.0.99

Helpful Hints..

There are three different IP format you can select from the add list:

"Single" Add single IP address.

"Network" Add a network IP addresses with subnet mask.

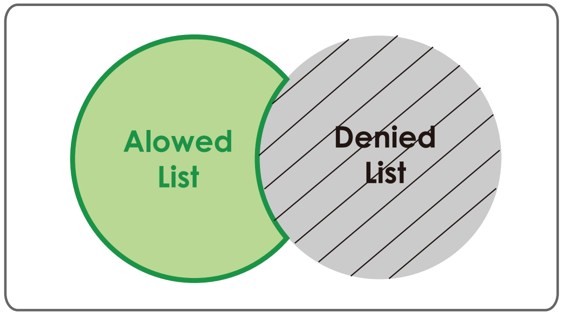
"Range" Add a specify range of IP address.

Always allow the IP address to access this device: Check this and input an IP address for administrator.

Note:
Please do not remove the default access list (1.0.0.0-255.255.255.255) before you add any new one to it, or you will not allow to access the camera anymore. If you remove it accidentally, please press the reset button to restore default. At the contrast, do not add your remote client IP into the deny list. (Including the administrator IP address)

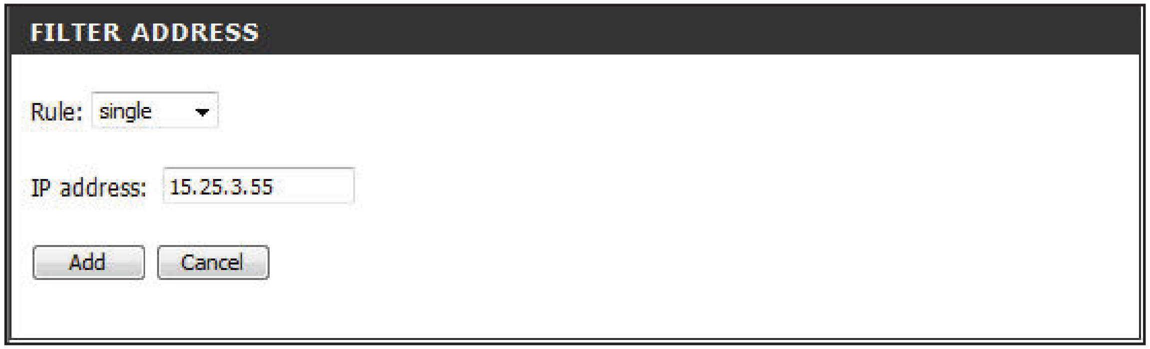
Note:
Please do not remove the default access list (1.0.0.0-255.255.255.255) before adding a new one, otherwise you will not be able to access the camera anymore. If removed accidentally, please press the reset button to restore the default settings.
In addition, do not add your remote client IP address into the deny list (including the administrator's IP address).

For example:
When the range of allowed list is set from 1.1.1.0 to 192.255.255.255 and the range of denied list is set from 1.1.1.0 to 170.255.255.255, Only users' IP located between 171.0.0.0 and 192.255.255.255 can access the Network Camera.



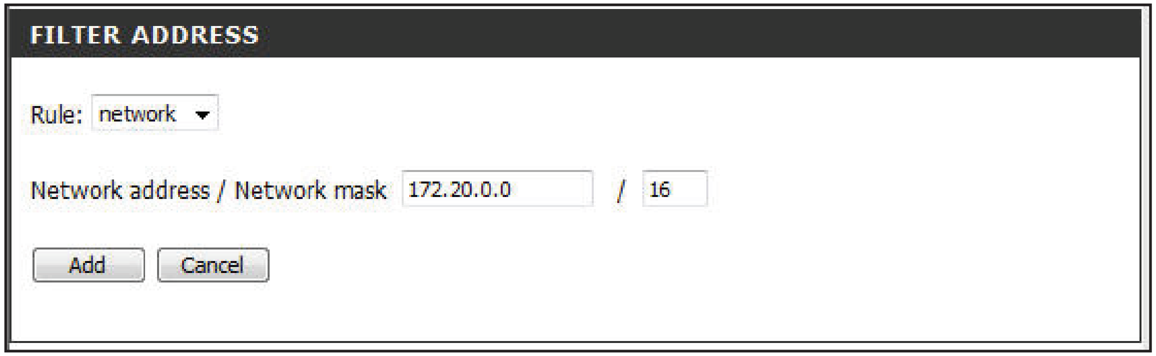
There are three different IP formats to choose from the list. Click **Add** to save the IP formats.

Single:	Add a single IP address.
Network:	Add a network IP addresses with subnet mask.
Range:	Specify the range of IP addresses.


FILTER ADDRESS

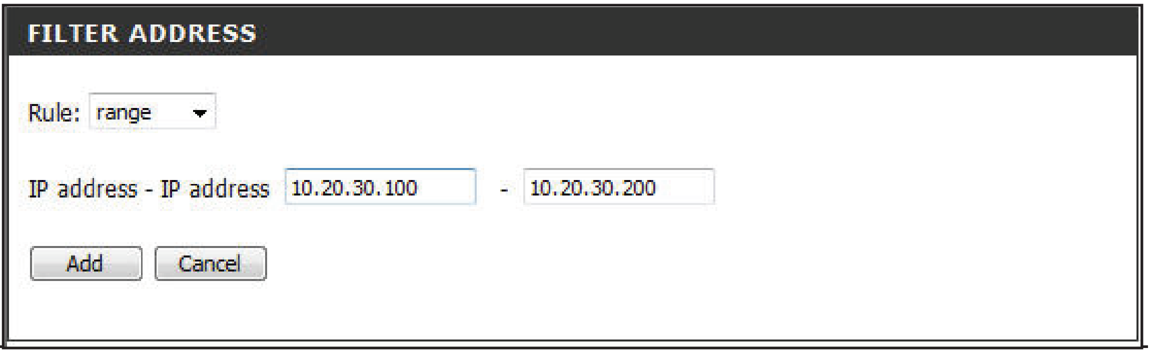
Rule: single

IP address: 15.25.3.55


FILTER ADDRESS

Rule: network

Network address / Network mask 172.20.0.0 / 16


FILTER ADDRESS

Rule: range

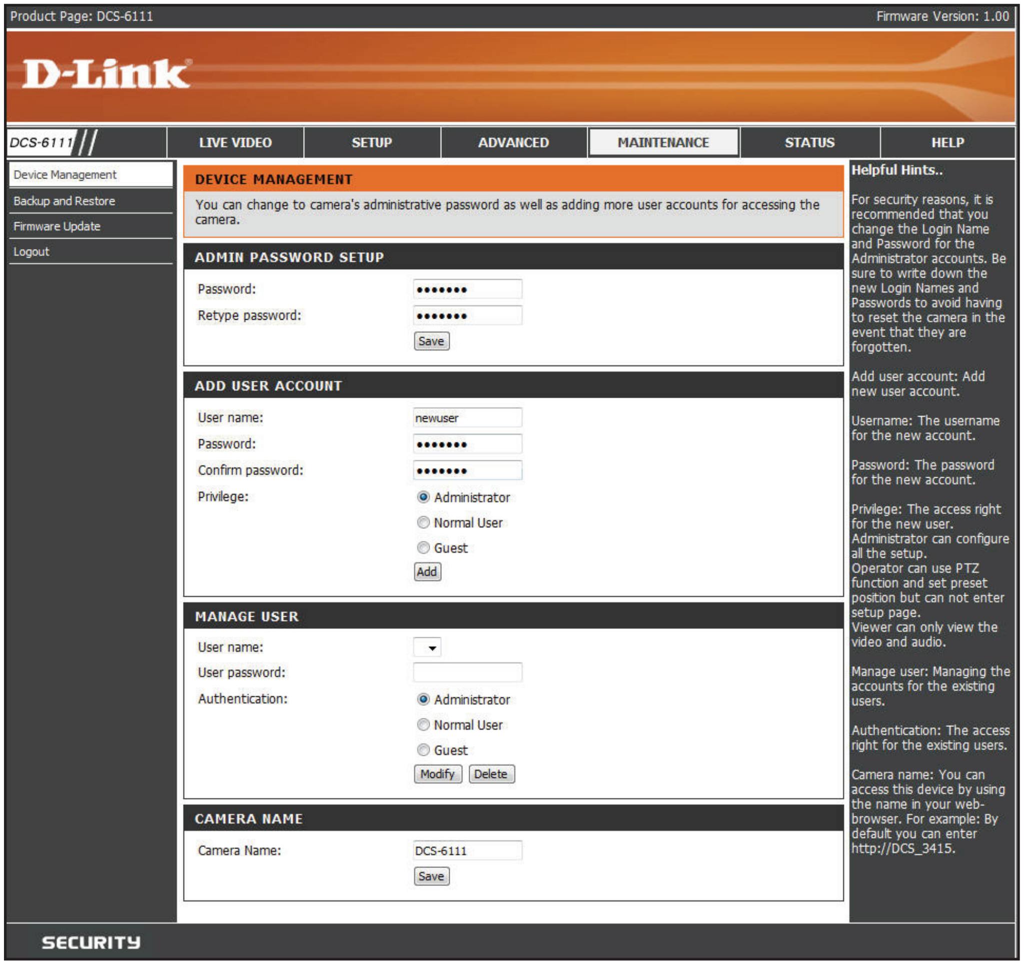
IP address - IP address 10.20.30.100 - 10.20.30.200

Maintenance

Device Management

You can modify both the camera's name and the administrator's password, as well as add more user accounts for accessing the camera.

Admin password setup:	Modify the password for the administrator's account.
Add user account:	Add a new user account.
Username:	Enter a username for the new account.
Password:	Enter a password for the new account.
Privilege:	Select the access rights for the new user.
Manage user:	Manage the accounts for existing users.
Authentication:	The access rights for existing users.
Camera Name:	Create a unique name for your camera and you can access the camera using this name in your web-browser. For example: http://DCS-6111 (by default).



DEVICE MANAGEMENT

You can change to camera's administrative password as well as adding more user accounts for accessing the camera.

ADMIN PASSWORD SETUP

Password: •••••••
Retype password: •••••••

ADD USER ACCOUNT

User name: newuser
Password: •••••••
Confirm password: •••••••
Privilege: ● Administrator ○ Normal User ○ Guest

MANAGE USER

User name:
User password:
Authentication: ● Administrator ○ Normal User ○ Guest

CAMERA NAME

Camera Name: DCS-6111

Helpful Hints..

For security reasons, it is recommended that you change the Login Name and Password for the Administrator accounts. Be sure to write down the new Login Names and Passwords to avoid having to reset the camera in the event that they are forgotten.

Add user account: Add new user account.

Username: The username for the new account.

Password: The password for the new account.

Privilege: The access right for the new user.
Administrator can configure all the setup.
Operator can use PTZ function and set preset position but can not enter setup page.
Viewer can only view the video and audio.

Manage user: Managing the accounts for the existing users.

Authentication: The access right for the existing users.

Camera name: You can access this device by using the name in your web-browser. For example: By default you can enter http://DCS_3415.

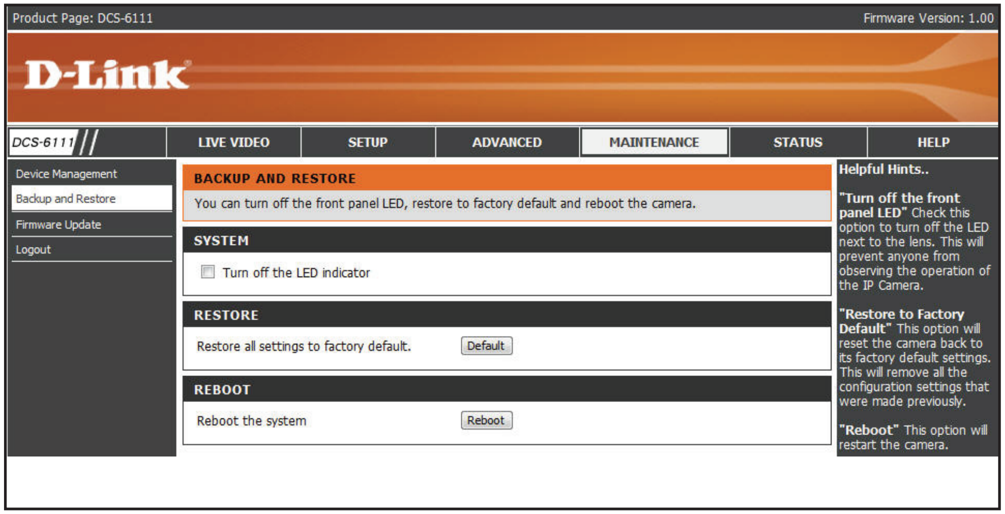
Backup and Restore

The Backup and Restore page will allow you to turn the front panel LED off, restore factory default settings, and reboot the camera.

Turn off the LED indicator: Select this option to turn off the LED next to the lens. This will prevent anyone from observing the operation of the network camera.

Restore: Click the **Restore** button to reset the camera back to its factory default settings. This will remove all the configuration settings that were previously made.

Reboot: Click the **Reboot** button to restart the camera.


Product Page: DCS-6111
Firmware Version: 1.00
D-Link
DCS-6111
LIVE VIDEO
SETUP
ADVANCED
MAINTENANCE
STATUS
HELP
Device Management
Backup and Restore
Firmware Update
Logout
Default
Reboot

BACKUP AND RESTORE

You can turn off the front panel LED, restore to factory default and reboot the camera.

SYSTEM

☐ Turn off the LED indicator

RESTORE

Restore all settings to factory default.

REBOOT

Reboot the system

Helpful Hints..

"Turn off the front panel LED" Check this option to turn off the LED next to the lens. This will prevent anyone from observing the operation of the IP Camera.

"Restore to Factory Default" This option will reset the camera back to its factory default settings. This will remove all the configuration settings that were made previously.

"Reboot" This option will restart the camera.

Firmware Update

Your current firmware version and date will be displayed on your screen. You may go to the D-Link Support page to check for the latest firmware version available.

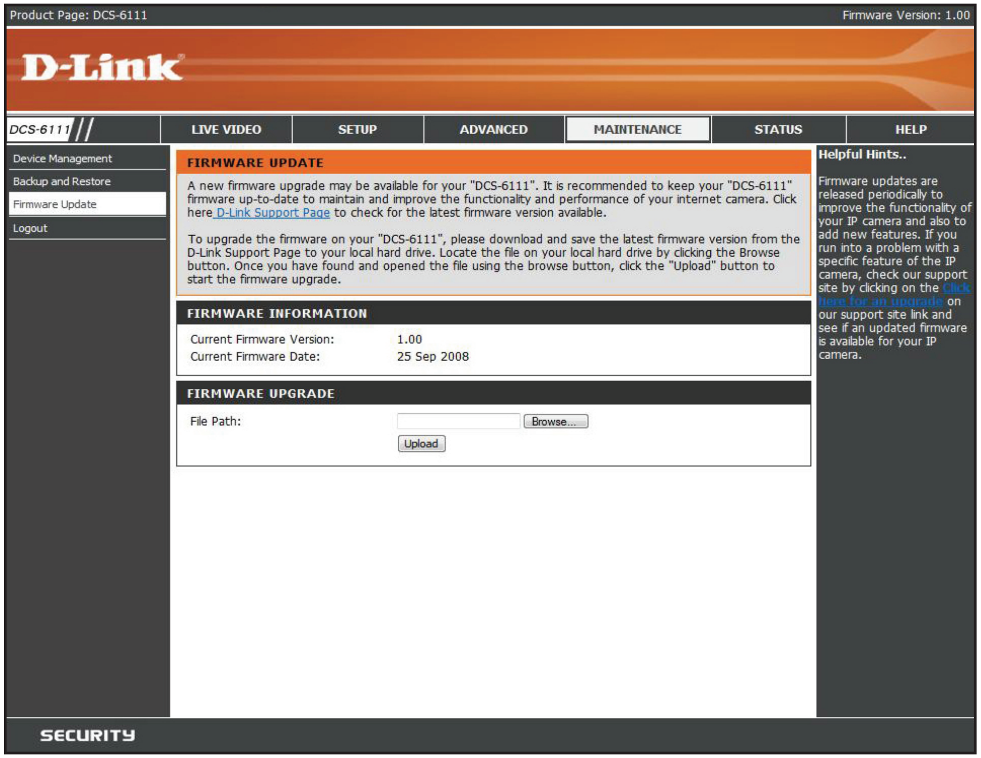
To upgrade the firmware on your DCS-6111, please download and save the latest firmware version from the D-Link support site to your local hard drive. Locate the file on your local hard drive by clicking the Browse button. Then, open the file and click the "**Upload**" button to start the firmware upgrade.

Current firmware version: It will be automatically determined and displayed by the system.

Current firmware date: It will be automatically determined and displayed by the system.

File Path: Locate the file (upgraded firmware) on your hard drive using the browse feature.

Upload: Start uploading and upgrading the new firmware to your camera.



FIRMWARE UPDATE

A new firmware upgrade may be available for your "DCS-6111". It is recommended to keep your "DCS-6111" firmware up-to-date to maintain and improve the functionality and performance of your internet camera. Click here D-Link Support Page to check for the latest firmware version available.

To upgrade the firmware on your "DCS-6111", please download and save the latest firmware version from the D-Link Support Page to your local hard drive. Locate the file on your local hard drive by clicking the Browse button. Once you have found and opened the file using the browse button, click the "Upload" button to start the firmware upgrade.

FIRMWARE INFORMATION

Current Firmware Version: 1.00
Current Firmware Date: 25 Sep 2008

FIRMWARE UPGRADE

File Path:

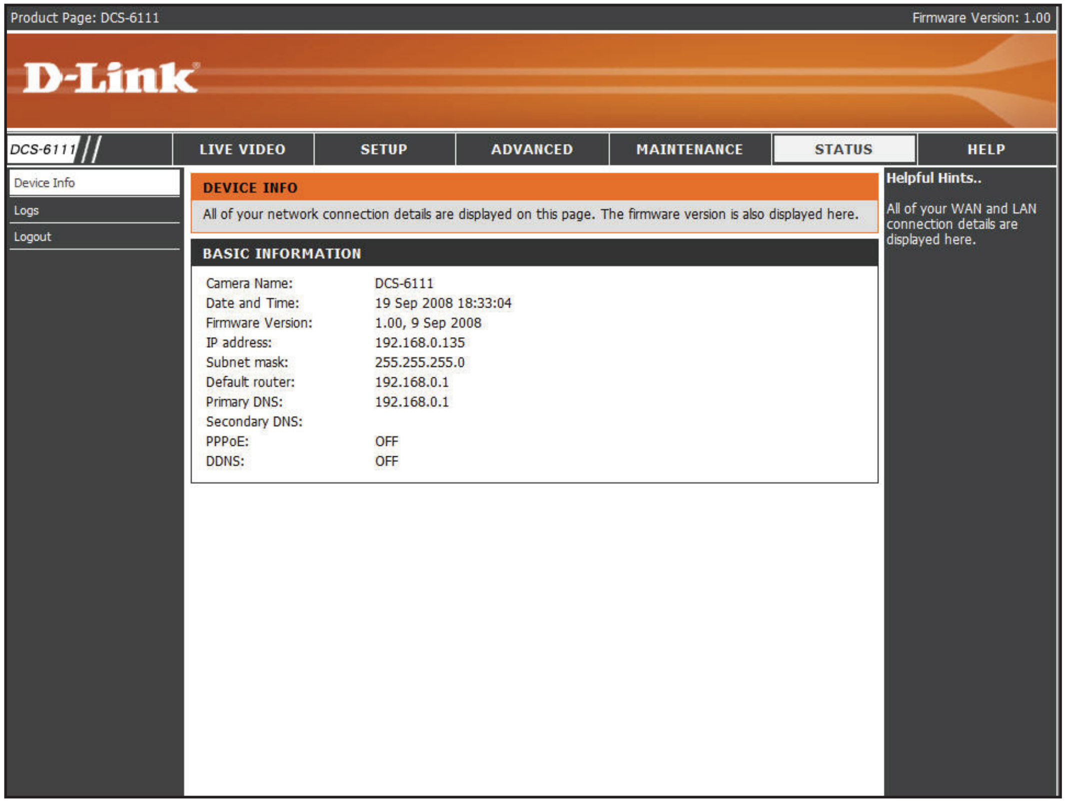
Helpful Hints..

Firmware updates are released periodically to improve the functionality of your IP camera and also to add new features. If you run into a problem with a specific feature of the IP camera, check our support site by clicking on the Click here for an upgrade on our support site link and see if an updated firmware is available for your IP camera.

Status

Device Info

This page displays all the details information about your device and network connection.


Product Page: DCS-6111
Firmware Version: 1.00
D-Link
DCS-6111
LIVE VIDEO
SETUP
ADVANCED
MAINTENANCE
STATUS
HELP
Device Info
Logs
Logout

DEVICE INFO

All of your network connection details are displayed on this page. The firmware version is also displayed here.

BASIC INFORMATION

Camera Name:	DCS-6111
Date and Time:	19 Sep 2008 18:33:04
Firmware Version:	1.00, 9 Sep 2008
IP address:	192.168.0.135
Subnet mask:	255.255.255.0
Default router:	192.168.0.1
Primary DNS:	192.168.0.1
Secondary DNS:	
PPPoE:	OFF
DDNS:	OFF

Helpful Hints..

All of your WAN and LAN connection details are displayed here.

Logs

This page displays the log information of your camera. You can configure a remote log server so that you can view your log details remotely.

Enable remote log: Click to enable this feature so that the camera can send camera log files to a remote server.

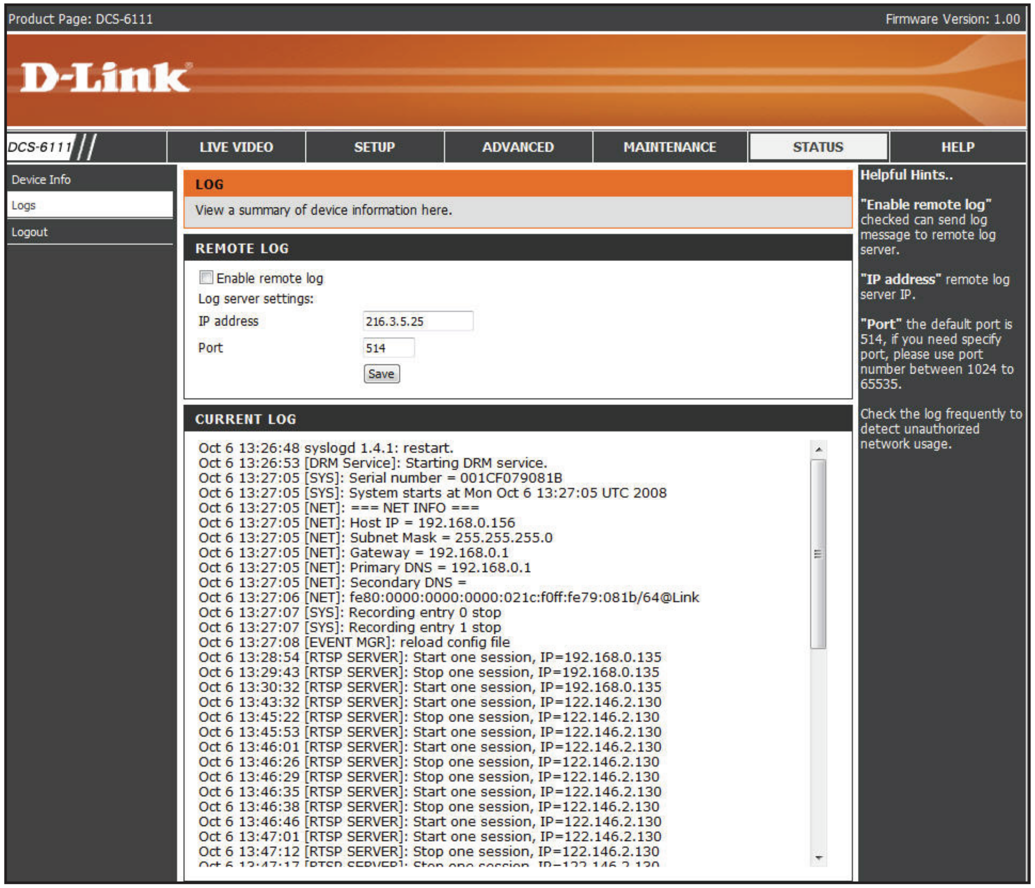
Log server settings: Configure the settings for the log server.

IP Address: The IP address of the remote server.

Port: The port number of the remote log server. The default port is 514.

Save: Click to save the settings.

Current Log: Displays the the system's log file. The content of the file reveals useful information about camera configuration and connectivity status after the camera boots up.



View a summary of device information here.

☐ Enable remote log

Log server settings:

IP address: 216.3.5.25

Port: 514

```
Oct 6 13:26:48 syslogd 1.4.1: restart.
Oct 6 13:26:53 [DRM Service]: Starting DRM service.
Oct 6 13:27:05 [SYS]: Serial number = 001CF079081B
Oct 6 13:27:05 [SYS]: System starts at Mon Oct 6 13:27:05 UTC 2008
Oct 6 13:27:05 [NET]: === NET INFO ===
Oct 6 13:27:05 [NET]: Host IP = 192.168.0.156
Oct 6 13:27:05 [NET]: Subnet Mask = 255.255.255.0
Oct 6 13:27:05 [NET]: Gateway = 192.168.0.1
Oct 6 13:27:05 [NET]: Primary DNS = 192.168.0.1
Oct 6 13:27:05 [NET]: Secondary DNS =
Oct 6 13:27:06 [NET]: fe80:0000:0000:0000:021c:f0ff:fe79:081b/64@Link
Oct 6 13:27:07 [SYS]: Recording entry 0 stop
Oct 6 13:27:07 [SYS]: Recording entry 1 stop
Oct 6 13:27:08 [EVENT MGR]: reload config file
Oct 6 13:28:54 [RTSP SERVER]: Start one session, IP=192.168.0.135
Oct 6 13:29:43 [RTSP SERVER]: Stop one session, IP=192.168.0.135
Oct 6 13:30:32 [RTSP SERVER]: Start one session, IP=192.168.0.135
Oct 6 13:43:32 [RTSP SERVER]: Start one session, IP=122.146.2.130
Oct 6 13:45:22 [RTSP SERVER]: Stop one session, IP=122.146.2.130
Oct 6 13:45:53 [RTSP SERVER]: Start one session, IP=122.146.2.130
Oct 6 13:46:01 [RTSP SERVER]: Start one session, IP=122.146.2.130
Oct 6 13:46:26 [RTSP SERVER]: Stop one session, IP=122.146.2.130
Oct 6 13:46:29 [RTSP SERVER]: Stop one session, IP=122.146.2.130
Oct 6 13:46:35 [RTSP SERVER]: Start one session, IP=122.146.2.130
Oct 6 13:46:38 [RTSP SERVER]: Stop one session, IP=122.146.2.130
Oct 6 13:46:46 [RTSP SERVER]: Start one session, IP=122.146.2.130
Oct 6 13:47:01 [RTSP SERVER]: Start one session, IP=122.146.2.130
Oct 6 13:47:12 [RTSP SERVER]: Stop one session, IP=122.146.2.130
Oct 6 13:47:17 [RTSP SERVER]: Stop one session, IP=122.146.2.130
```

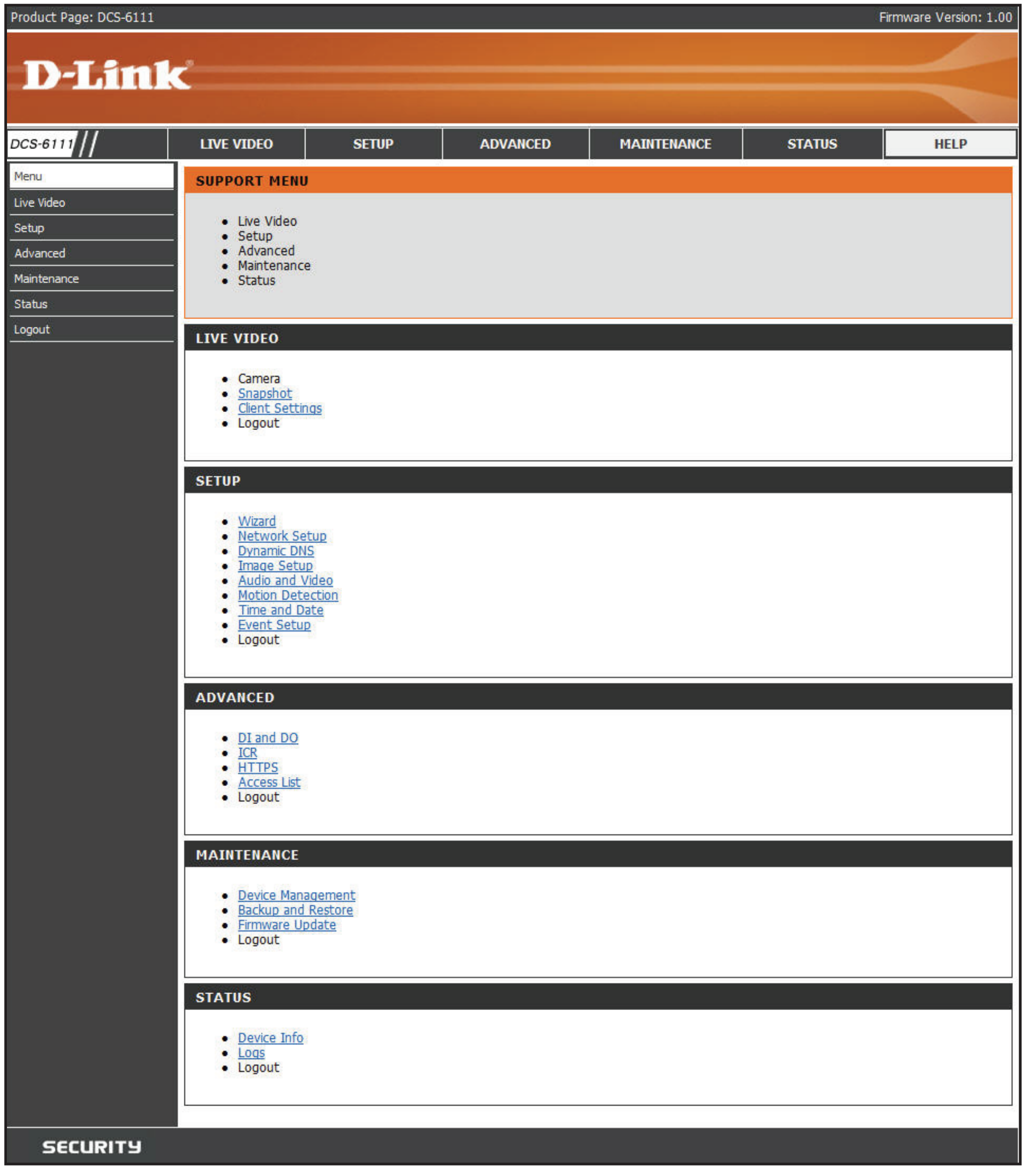
"Enable remote log" checked can send log message to remote log server.

"IP address" remote log server IP.

"Port" the default port is 514, if you need specify port, please use port number between 1024 to 65535.

Check the log frequently to detect unauthorized network usage.

Help


Product Page: DCS-6111
Firmware Version: 1.00
D-Link
DCS-6111
LIVE VIDEO
SETUP
ADVANCED
MAINTENANCE
STATUS
HELP
Menu
Live Video
Setup
Advanced
Maintenance
Status
Logout
SECURITY

SUPPORT MENU

- Live Video
- Setup
- Advanced
- Maintenance
- Status

LIVE VIDEO

- Camera
- Snapshot
- Client Settings
- Logout

SETUP

- Wizard
- Network Setup
- Dynamic DNS
- Image Setup
- Audio and Video
- Motion Detection
- Time and Date
- Event Setup
- Logout

ADVANCED

- DI and DO
- ICR
- HTTPS
- Access List
- Logout

MAINTENANCE

- Device Management
- Backup and Restore
- Firmware Update
- Logout

STATUS

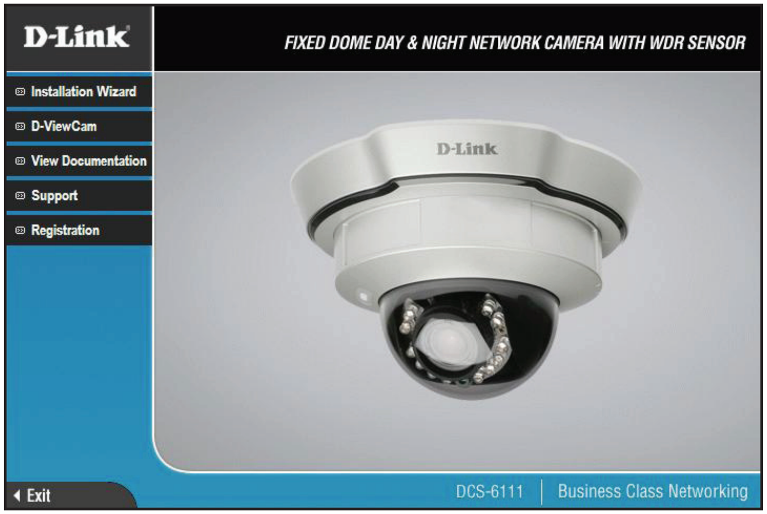
- Device Info
- Logs
- Logout

D-ViewCam Installation

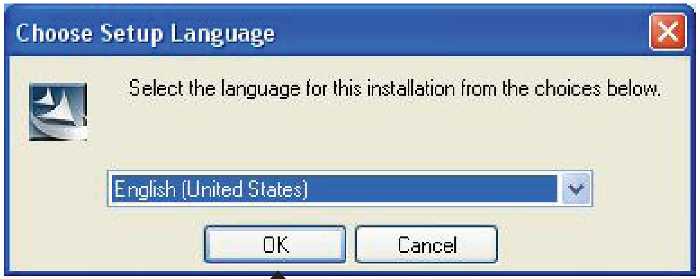
D-ViewCam software is included for the administrator to manage up to 32 D-Link network cameras remotely. The administrator can use the software to configure the advanced settings for the camera. D-ViewCam is a complete management tool and includes all configurative settings.

Insert the CD into the CD-ROM drive. A menu screen will appear as shown below.

Click **D-ViewCam**


D-Link
FIXED DOME DAY & NIGHT NETWORK CAMERA WITH WDR SENSOR
Installation Wizard
D-ViewCam
View Documentation
Support
Registration
Exit
DCS-6111
Business Class Networking

D-ViewCam provides English, Traditional Chinese, and Simplified Chinese language versions. Select a language version and click **OK** to continue.

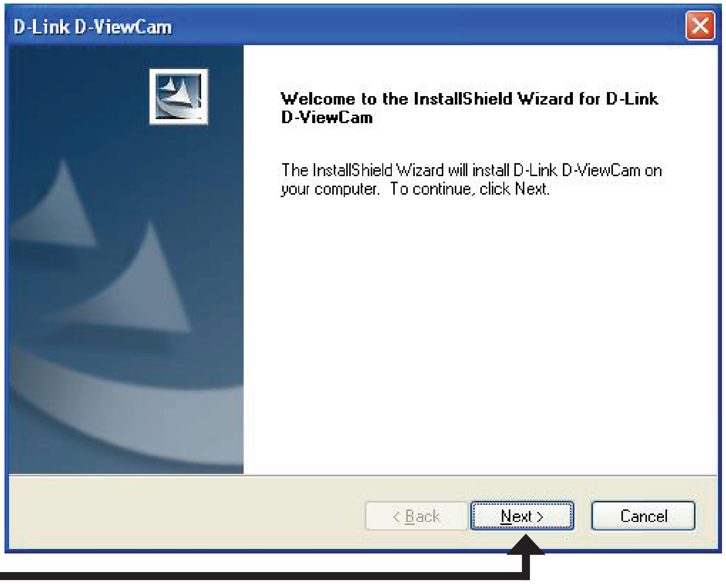

Choose Setup Language
OK
Cancel

Select the language for this installation from the choices below.

English (United States)

Click **OK**

Click **Next** to continue.

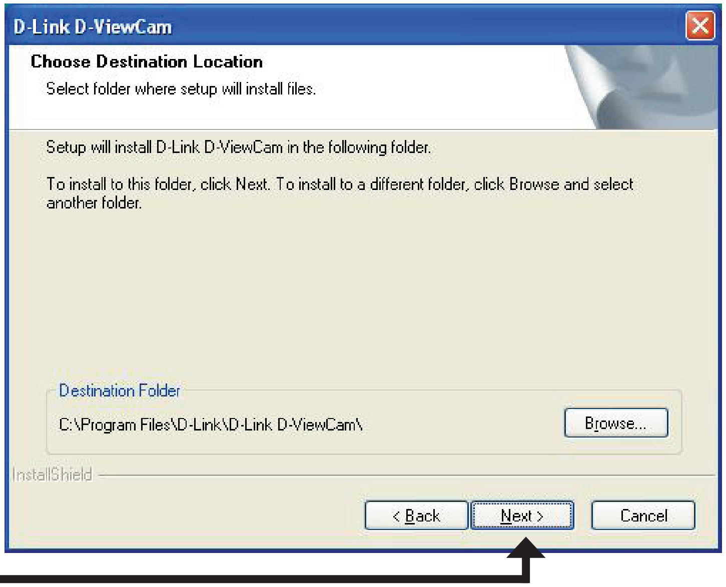

D-Link D-ViewCam
< Back
Next >
Cancel

Welcome to the InstallShield Wizard for D-Link D-ViewCam

The InstallShield Wizard will install D-Link D-ViewCam on your computer. To continue, click Next.

Click **Next**

Click **Browse** if you would like to choose a specific folder for the installation. Otherwise, click **Next** to continue.


D-Link D-ViewCam
InstallShield
Browse...
< Back
Next >
Cancel

Choose Destination Location

Select folder where setup will install files.

Setup will install D-Link D-ViewCam in the following folder.

To install to this folder, click Next. To install to a different folder, click Browse and select another folder.

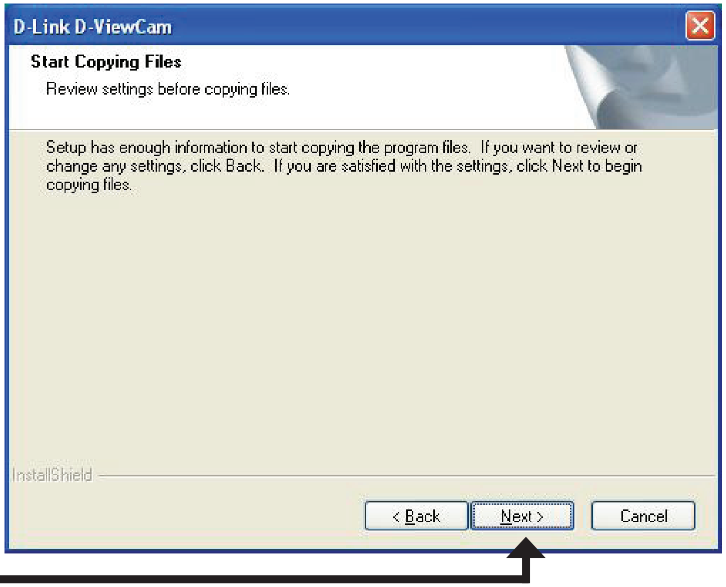
Destination Folder

C:\Program Files\D-Link\D-Link D-ViewCam\

Click **Next**

Click **Next** to start the installation.

Note: *The D-ViewCam installation process may take several minutes to complete.*


D-Link D-ViewCam

Start Copying Files

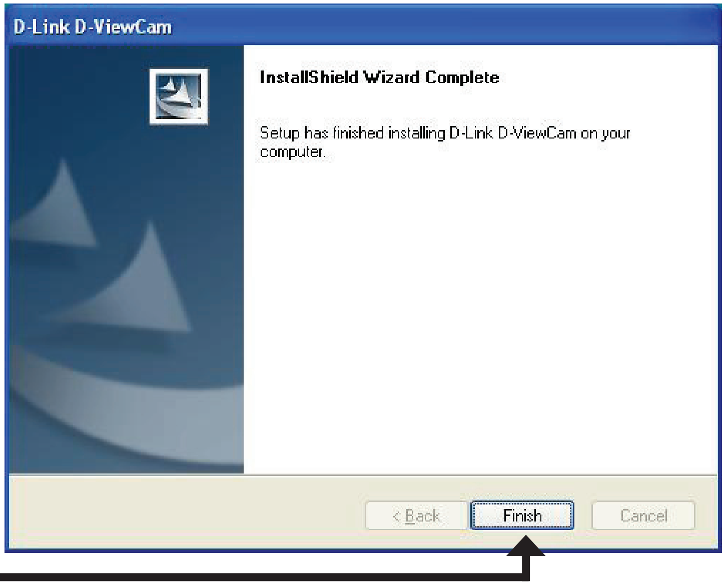
Review settings before copying files.

Setup has enough information to start copying the program files. If you want to review or change any settings, click Back. If you are satisfied with the settings, click Next to begin copying files.

InstallShield
< Back
Next >
Cancel

Click **Next**

Click **Finish** to complete the installation.


D-Link D-ViewCam

InstallShield Wizard Complete

Setup has finished installing D-Link D-ViewCam on your computer.

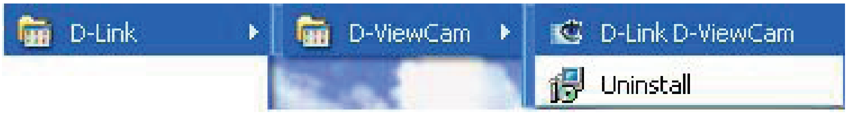
< Back
Finish
Cancel

Click **Finish**

Add a Camera

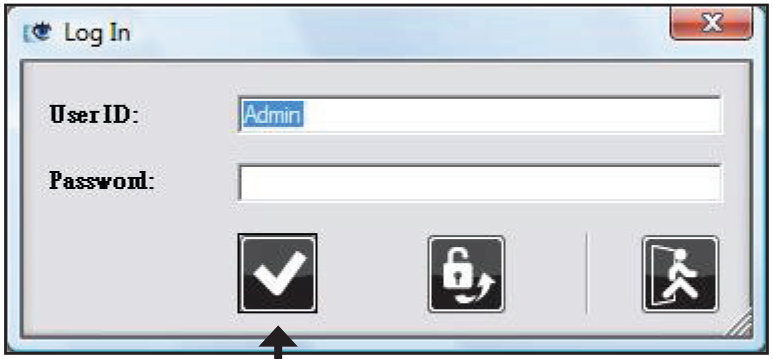
This section will show you how to start and add a camera to the D-ViewCam system.

To start D-ViewCam, select **Start > All Programs > D-Link > D-Link D-ViewCam**.



Enter admin as the default username and leave the password blank. Click ☑ to log into the system and access the Add Camera Wizard.

Note: *Please refer to page 48 in the D-ViewCam user manual to change your password.*



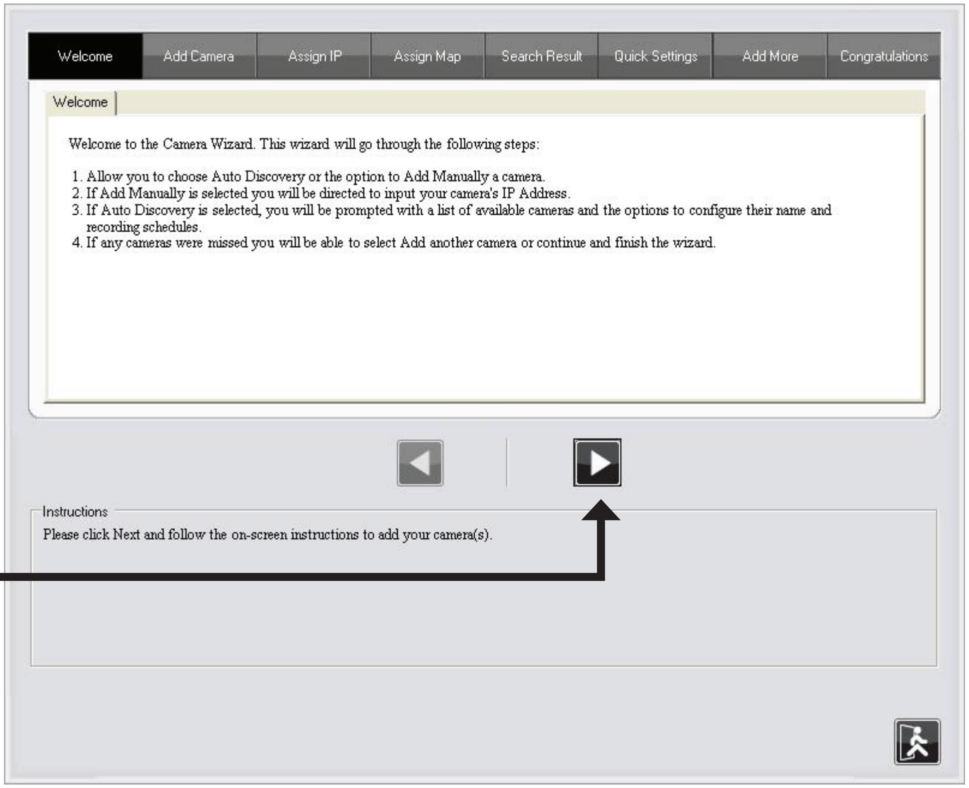
User ID: Admin

Password:

Click ☑

Welcome to the Add Camera Wizard. Use this wizard to add your cameras to the D-ViewCam system. Click ▶ to continue.

Note: *Use the left or right arrow to navigate the wizard.*


Welcome
Add Camera
Assign IP
Assign Map
Search Result
Quick Settings
Add More
Congratulations
Welcome

Welcome to the Camera Wizard. This wizard will go through the following steps:

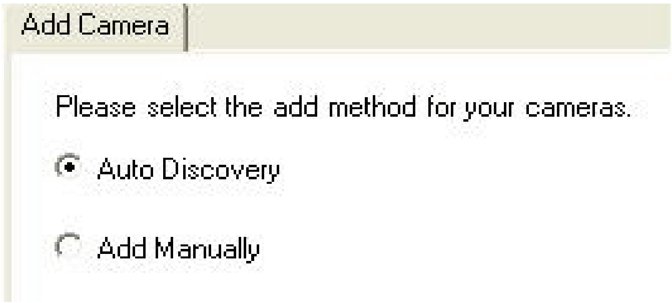
1. Allow you to choose Auto Discovery or the option to Add Manually a camera.
2. If Add Manually is selected you will be directed to input your camera's IP Address.
3. If Auto Discovery is selected, you will be prompted with a list of available cameras and the options to configure their name and recording schedules.
4. If any cameras were missed you will be able to select Add another camera or continue and finish the wizard.

Instructions

Please click Next and follow the on-screen instructions to add your camera(s).

Click ▶

Select a method to add your camera(s). You can select **Auto Discovery** to automatically search for your camera(s), or select **Add Manually** to add your camera(s) using the camera's IP address. Click **Next** to continue.

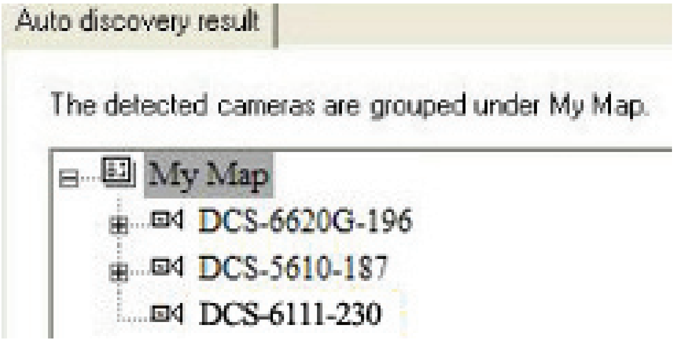


Please select the add method for your cameras.

● Auto Discovery

○ Add Manually

If you select **Auto Discovery,** the system will search all cameras that are located on the same LAN with same subnet. The system will place all the cameras at the default map called **My Map**. Click **Next** to continue.



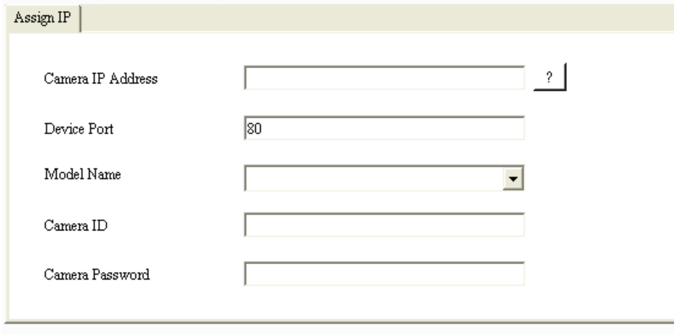
The detected cameras are grouped under My Map.

- My Map
  - DCS-6620G-196
  - DCS-5610-187
  - DCS-6111-230

If you choose **Add Manually,** enter the IP address or domain name, http port, model name, camera ID and password.

Click the **"?"** button to auto detect the camera's model name, then the model name will appear in the **Model Name** box.

Click **Next** to continue.



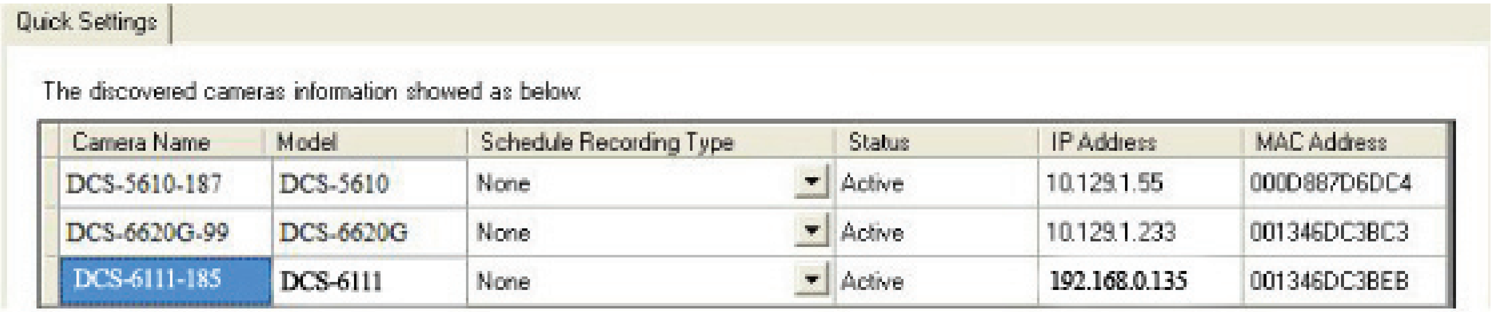
Camera IP Address	
Device Port	80
Model Name	
Camera ID	
Camera Password	

D-ViewCam shows the detected network camera(s) information. You can select the recording mode for each camera.

- **24/7 Continuous Recording:** Continuously records 24 hours a day, 7 days a week.
- **24/7 Motion Detection Recording:** Continuously monitors, but only records when motion is detected.
- **Office Hours Only:** Continuously monitors during office hours (8:00AM to 6:00PM), and only records when motion is detected.
- **Non-Office Hours Only:** Continuously monitors during non-office hours (6:00PM to 8:00AM), and only records when motion is detected.

Note: *Excluding 24/7 Continuous Recording, all other schedule recording modes can only record when motion is detected. Please refer to the user manual for more information.*

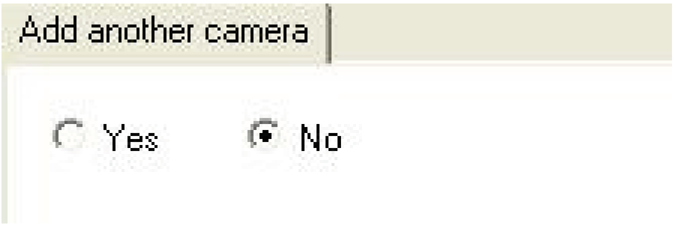
Click **Next** to continue.



The discovered cameras information showed as below:

Camera Name	Model	Schedule Recording Type	Status	IP Address	MAC Address
DCS-5610-187	DCS-5610	None	Active	10.129.1.55	000D887D6DC4
DCS-6620G-99	DCS-6620G	None	Active	10.129.1.233	001346DC3BC3
DCS-6111-185	DCS-6111	None	Active	192.168.0.135	001346DC3BEB

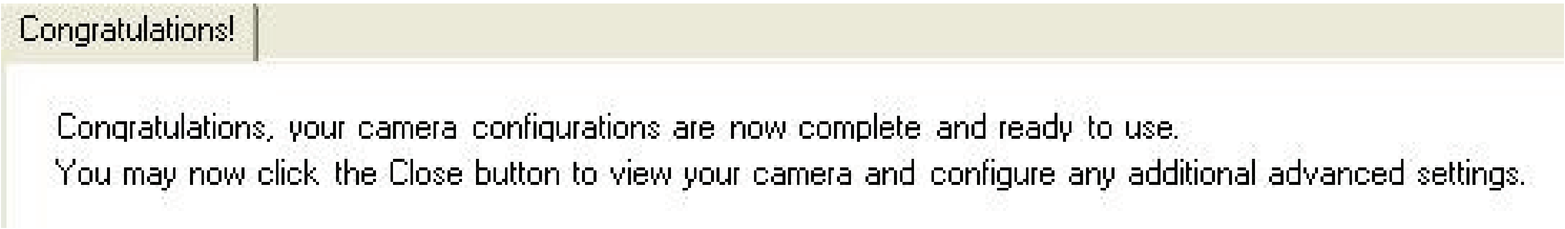
Select **Yes** to add other cameras, or select No if you have no additional cameras to add. Click **Next** to continue.



Add another camera

○ Yes ● No

The **Add Camera wizard** is now complete. Click **Close** to access the D-ViewCam's main screen.

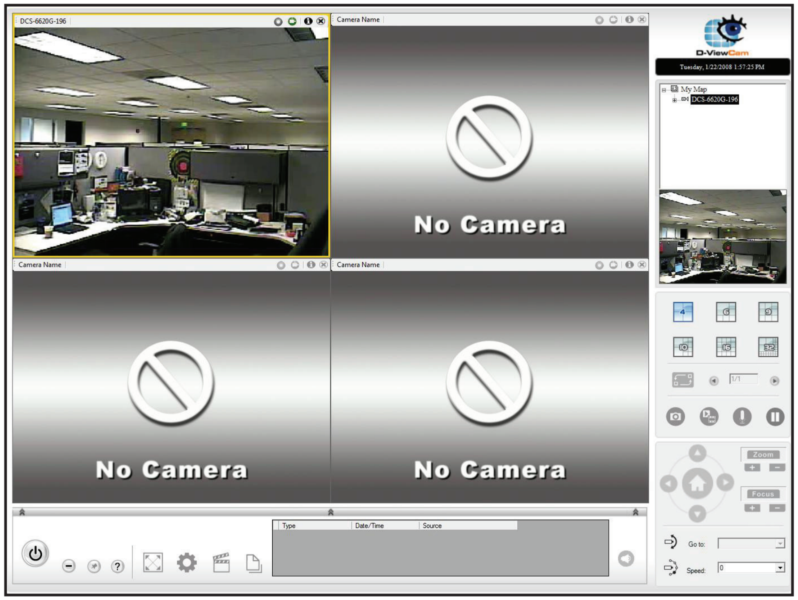


Congratulations!

Congratulations, your camera configurations are now complete and ready to use.
You may now click the Close button to view your camera and configure any additional advanced settings.

Your D-ViewCam Installation is Complete!

Note: *Please refer to the D-ViewCam user manual for information about using D-ViewCam.*


DCS-6620G-196
Camera Name
No Camera
Camera Name
No Camera
Camera Name
No Camera
D-ViewCam
My Map
DCS-6620G-196
Zoom
Focus
Go to:
Speed:
Type
Date/Time
Source

Frequently Asked Questions

This chapter provides solutions to problems that may occur during the installation and operation of the DCS-6111. Read the following descriptions if you are having any problems.

WDR D&N Fixed Dome Network Camera Features

1. What is a WDR D&N Fixed Dome Network Camera?

The WDR D&N Fixed Dome Network Camera is a stand-alone system connecting directly to an Ethernet or Fast Ethernet network. The WDR D&N Fixed Dome Network Camera differs from a conventional PC Camera because it has an integrated system with built-in CPU and web-based solutions, providing a low cost solution that can transmit high quality video images for monitoring. The WDR D&N Fixed Dome Network Camera can be remotely managed, accessed and controlled using a web browser from any computer over an Intranet or Internet.

2. What is the maximum number of users that can access DCS-6111 simultaneously?

The maximum number of users that can log onto the WDR D&N Fixed Dome Network Camera at the same time is 10. Please keep in mind the overall performance of the transmission speed will be reduced if many users have logged on to the camera simultaneously.

There is no limit on the number of users when a multicast-enabled router is being used. The multicast protocol helps reduce the network bandwidth consumption.
Note that the Network Camera must be configured to enable multicast streaming. For more information, see RTSP Streaming on page 44.

3. What algorithm is used to compress the digital image?

The WDR D&N Fixed Dome Network Camera utilizes MPEG-4 simple profile or MJPEG Mode image compression technology providing high quality images. MJPEG is a standard for image compression and it can be applied to various web browsers and application software without installing any extra software

4. Can I capture still images from the WDR D&N Fixed Dome Network Camera?

Yes you can capture still images using the snapshot function.

WDR D&N Fixed Dome Network Camera Installation

1. Can the Network Camera be used outdoors?

The WDR D&N Fixed Dome Network Camera is not weatherproof. It needs to be equipped with a weatherproof case for outdoor use but it is not recommended.

2. When physically connecting the Network Camera to a network, what network cabling is required?

The WDR D&N Fixed Dome Network Camera uses Category 5 UTP cable allowing 10 Base-T and 100 Base-T networking solutions.

3. Can the Network Camera be setup as a PC-cam on a computer?

No, the WDR D&N Fixed Dome Network Camera is used only on an Ethernet or Fast Ethernet network. The D-Link DSB-C110, DSB-C310, can be used as a PC Camera (Webcam).

4. Can the Network Camera be connected to the network if it consists only of private IP addresses?

Yes, the WDR D&N Fixed Dome Network Camera can be connected to a LAN using only a private IP address.

5. Can the Network Camera be installed and work if a firewall exists in the network?

If a firewall exists in the network, port 80 is open for ordinary data communication and HTTPS port 443 for . The DCS-6111 uses RTSP port 554, RTP port 556, and RTP port 558 for streaming audio and video. These ports (or the ports you have specified in the Setup Tab in the Configuration screen) need to be opened on the firewall.

6. Why am I unable to access the Network Camera from a web browser?

If a router or firewall is used on the network, the correct ports for the DCS-6111 may not be configured on the router or firewall. To correct the problem, you need to determine if the DCS-6111 is behind a router or firewall and if the router or firewall is properly configured for the ports the DCS-6111 is using. Refer to Page 42 for help in opening the correct ports on a router or firewall for use with the DCS-6111. Other possible problems might be due to the network cable. Try replacing your network cable. Test the network interface of the product by connecting a local computer to the unit. If the problem is not solved, the WDR D&N Fixed Dome Network Camera might be faulty.

7. Why does the Network Camera work locally but not externally?

- This might be caused by network firewall protection. The setting of the firewall may need to be changed in order for the WDR D&N Fixed Dome Network Camera to be accessible outside of your local LAN. Check with the Network Administrator for your network.
- Make sure that your WDR D&N Fixed Dome Network Camera isn’t conflicting with any Web server you may have running on your network.
- The default router setting might be a possible reason. Check that the configuration of the router settings allows the WDR D&N Fixed Dome Network Camera to be accessed outside of your local LAN.

8. I connected the Network Camera directly to a computer with a cross-over Ethernet cable and received a Windows error upon running the Installation Wizard?

- This Windows error will occur if the WDR D&N Fixed Dome Network Camera is connected to a computer that is not properly configured with a valid IP address. Turn off DHCP from the Network Settings in Windows and configure the computer with a valid IP address or connect the camera to a router with DHCP enabled.
- This error can also occur if the Installation Wizard icon had been clicked more than once from the setup wizard.

9. Noisy images occur. How can I solve the problem?

The video images might be noisy if the WDR D&N Fixed Dome Network Camera is used in a very low light environment. To solve this issue you need more lighting.

10. The images appear to be of poor quality, how can I improve the image quality?

- Make sure that your computer’s display properties are set above 256 colors. Using 16 or 256 colors on your computer will produce dithering artifacts in the image, making the image appear to be of poor quality.
- The configuration on the WDR D&N Fixed Dome Network Camera image display is incorrect. Through the Setup > Image Setup section of the Web management you need to adjust the image related parameters such as brightness, white balance and power line frequency for fluorescent light.

Networking Basics

Check your IP address

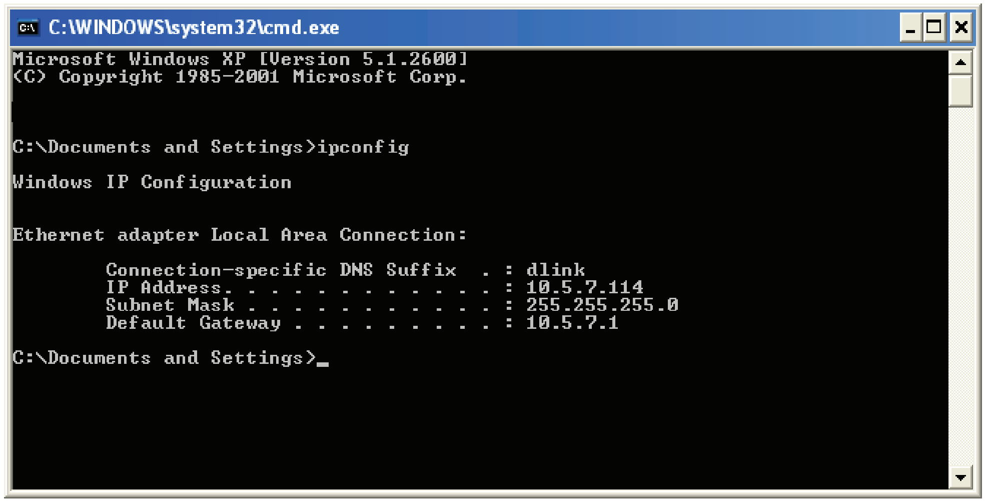
After you install your new D-Link adapter, by default, the TCP/IP settings should be set to obtain an IP address from a DHCP server (i.e. wireless router) automatically. To verify your IP address, please follow the steps below.

Click on **Start > Run**. In the run box type ***cmd*** and click **OK**. (Windows Vista® users type *cmd* in the **Start Search** box.)

At the prompt, type ***ipconfig*** and press **Enter**.

This will display the IP address, subnet mask, and the default gateway of your adapter.

If the address is 0.0.0.0, check your adapter installation, security settings, and the settings on your access point. Some firewall software programs may block a DHCP request on newly installed adapters.



```
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.



C:\Documents and Settings>ipconfig

Windows IP Configuration


Ethernet adapter Local Area Connection:

        Connection-specific DNS Suffix  . : dlink
        IP Address. . . . . . . . . . . . : 10.5.7.114
        Subnet Mask . . . . . . . . . . . : 255.255.255.0
        Default Gateway . . . . . . . . . : 10.5.7.1

C:\Documents and Settings>_
```

If you are connecting to a wireless network at a hotspot (e.g. hotel, coffee shop, airport), please contact an employee or administrator to verify their wireless network settings.

Statically Assign an IP address

If you are not using a DHCP capable gateway/access point, or you need to assign a static IP address, please follow the steps below:

Step 1

Windows Vista® - Click on **Start > Control Panel > Network and Internet > Network and Sharing Center > Manage Network Connections.**

Windows® XP - Click on **Start > Control Panel > Network Connections.**

Step 2

Right-click on the **Local Area Connection** which represents your D-Link network adapter and select Properties.

Step 3

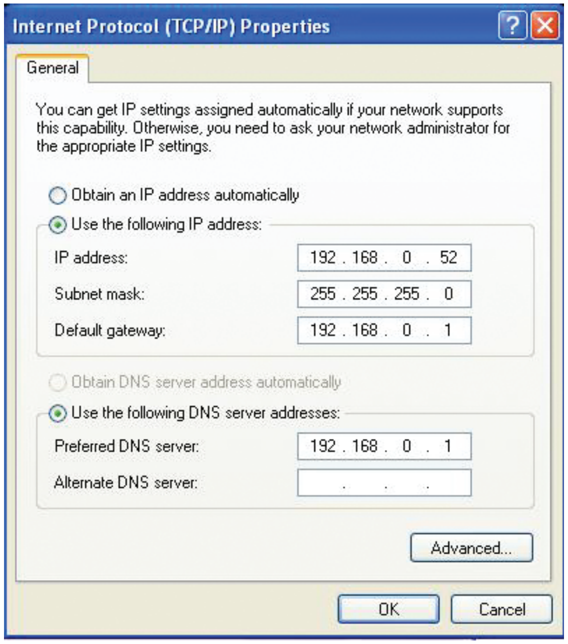
Highlight **Internet Protocol (TCP/IP)** and click **Properties**.

Step 4

Click **Use the following IP address** and enter an IP address that is on the same subnet as your network or the LAN IP address on your access point.

Example: If the network camera's LAN IP address is 192.168.0.1, make your IP address 192.168.0.X where X is a number between 2 and 99. Make sure that the number you choose is not in use on the network. Set Default Gateway the same as the LAN IP address of your access point (192.168.0.1).

Set Primary DNS the same as the LAN IP address of your access point (192.168.0.1). The Secondary DNS is not needed or you may enter a DNS server from your ISP.



Internet Protocol (TCP/IP) Properties

General

You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

○ Obtain an IP address automatically

● Use the following IP address:

IP address: 192 . 168 . 0 . 52

Subnet mask: 255 . 255 . 255 . 0

Default gateway: 192 . 168 . 0 . 1

○ Obtain DNS server address automatically

● Use the following DNS server addresses:

Preferred DNS server: 192 . 168 . 0 . 1

Alternate DNS server: . . .

Step 5

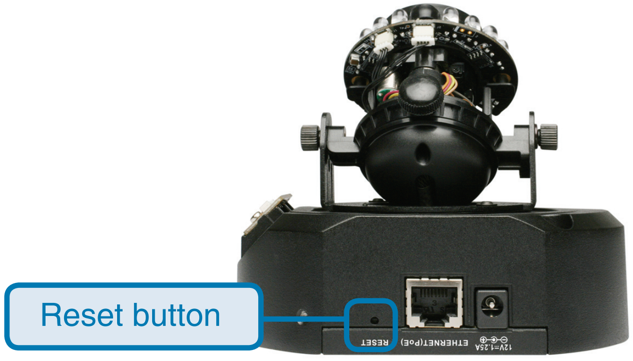
Click **OK** to save your settings.

Reset and Restore

The hidden button in the pinhole beside the Ethernet socket is used to **reset** the system or **restore** the factory default settings. Sometimes resetting the **DCS-6111** will return the system back to a normal state. If the system still has problems after reset, restore the factory settings and install again:

RESET:

1. Lightly insert a paper clip (or a similar sized tool) into the reset hole on the back of the camera, press lightly and then release the button.
2. The LED on the front of the camera will begin blinking red and green.
3. When the LED stops the blinking the reset has completed.

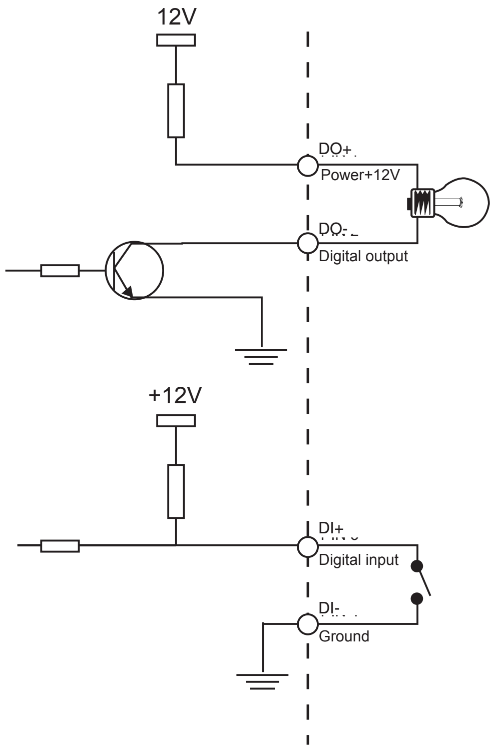


RESTORE:

1. Insert the paperclip or other tool and hold the button in.
2. Wait for the LED on the front of the camera to blink red and green and hold the button for 30 seconds.
3. Withdraw the tool after the second cycle of the LED blinking and a factory restore has been completed.

Restoring the factory defaults will result in the loss of any previous settings and will require running the Installation Wizard to return the DCS-6111 to a normal state.

External I/O Port

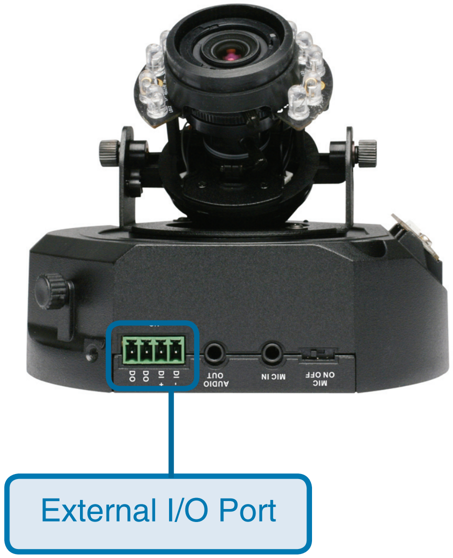


DI/DO Diagram

Pin 1~4 are used to connect with digital input and digital output devices. Refer to the following illustration for connection method.

The **DCS-6111** provides a general I/O terminal block with one digital input and one relay switch for device control. The relay switch of DO+ and DO- can be used to turn on or off the external device. DI+ and DI- can be connected to an external sensor and the state of voltage will be monitored from the initial state 'LOW'.

The I/O connector provides the physical interface for digital output (DO) and digital input (DI) that is used for connecting a diversity of external alarm devices to the Network Camera such as IR-Sensors and alarm relays.



The digital input is used for connecting external alarm devices and once triggered images will be taken and e-mailed.

Technical Specifications

NETWORK PROTOCOL SUPPORT

+ IPv4, IPv6, TCP/IP, RTSP/ RTP/ RTCP, HTTP, HTTPS, SMTP, FTP, NTP, DNS, DHCP, UPnP, DDNS, PPPoE, IGMP, Samba client, IP Filtering, 3GPP, LLTD

BUILT-IN NETWORK INTERFACES

+ 10/100BASE-TX Ethernet port, RJ45

VIDEO ALGORITHM SUPPORT

+ JPEG for still image
+ Compression: MJPEG & MPEG-4
+ Streaming: Simultaneous dual-streaming
+ MPEG-4 streaming over UDP, TCP, or HTTP
+ MPEG-4 multicast streaming
+ MJPEG streaming over HTTP
+ Supports 3GPP mobile surveillance
+ Camera live viewing for up to 10 clients

VIDEO RESOLUTION

+ MPEG-4/MJPEG video resolution up to 640x480 (VGA)
+ Up to 30fps at 176 x 144
+ Up to 30fps at 320 x 240
+ Up to 30fps at 640 x 480

VIDEO FEATURES

+ Adjustable image size, quality, and bit rate
+ Time stamp and text overlays
+ 3 configurable motion detection windows
+ 5 configurable privacy masks
+ Flip & mirror
+ Configurable brightness, saturation, contrast
+ Adjustable AGC level, AWB and AES

VIDEO BIT RATE

20K to 4M

SENSOR & LENS SPECIFICATIONS

+ 1/4” WDR VGA CMOS sensor
+ 3.3-12mm vari-focal lens , F1.4-F2.9
+ Built-in IR-cut Removable (ICR) filter: Auto/Schedule/Manual
+ Minimum illumination: 1.5 Lux, F1.4

IR LED

+ 20M illumination distance with 12 LEDs and light sensor

EVENT MANAGEMENT

+ Motion detection weekly schedule
+ Event notification and upload snapshots/video clips via HTTP, SMTP, or FTP
+ Multiple HTTP, SMTP, or FTP server setups
+ Multiple event notification setups for flexible application
+ Multiple recording methods for easier backup

SECURITY

+ Administrator and user group protected
+ Password authentication
+ HTTP and RTSP digest encryption
+ HTTPS streaming*
+ Remote client access allow / deny list

SURVEILLANCE SOFTWARE FUNCTIONS

+ Remote management/control of up to 32 cameras
+ Viewing of up to 32 cameras on one screen
+ Supports all management functions provided in web interface
+ Scheduled motion triggered, or manual recording options

REMOTE MANAGEMENT

+ Configuration accessible via web browser
+ Take snapshots/video clips and save to local hard drive or NAS via web browser

SYSTEM REQUIREMENTS

+ Operating System: Microsoft Windows 2000, XP, Vista

SUPPORTED PDA, MOBILE PHONES & SOFTWARE HANDSETS WITH 3GPP PLAYER

+ Packet Video Player 3.0
+ QuickTime 6.5

+ Real Player 10.5

NETWORK INTERFACE
+ IEEE 802.3/802.3u 10/100BASE-TX Ethernet port
+ Supports half/full-duplex operations
+ Supports 802.3x Flow Control in full-duplex mode
+ Supports IEEE 802.3af PoE

AUDIO
+ Compression and bit rate:
- GSM-AMR speech compression, bit rate: 4.75 kbps ~12.2 kbps
- MPEG-4 AAC audio encoding, bit rate: 16 kbps ~128 kbps
+ Interface: external microphone input, external speaker output
+ Supports two-way audio by SIP protocol
+ Supports hardware and software audio mute

EXTERNAL DEVICE INTERFACE
+ One D/I and one D/O for external sensor and alarm

DIAGNOSTIC LED
2 color LED

POWER INPUT
100 - 240VAC, 50/60Hz, 12VDC, 1.25A

POWER CONSUMPTION
MAX 11 W

DIMENSIONS
194 (W) X 180 (D) X 107 (H) (mm)

WEIGHT
650 grams

**HTTPS streaming will reduce the video frame rate automatically.*

OPERATION TEMPERATURE
0º to 40º C (32º to 104º F)

STORAGE TEMPERATURE
-20º to 70º C (-4º to 158º F)

HUMIDITY
20% to 80% non-condensing

CERTIFICATIONS
+ FCC
+ CE
+ C-Tick

PACKAGE INCLUDES
+ DCS-6111 camera
+ External power adapter
+ CAT5 Ethernet cable
+ Quick Installation Guide
+ Master CD